

SAFETY NEWS



Lifesaving Signs



***M.S.A. DUSTFOE #55**—Light-weight breathing protection against dusts not significantly more toxic than lead.



***M.S.A. COMFO METAL FUME**—Effective protection against harmful fumes from molten or heated metals.



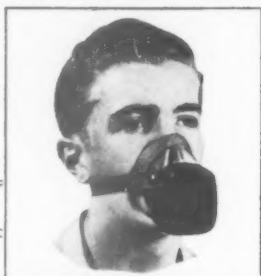
***M.S.A. COMPACT COMFO**—Twin-filters remove fibrosis-producing and toxic dusts such as asbestos, aluminum, silica.



M.S.A. COMFO ULTRA-FILTER—99.9% efficiency against radioactive dusts, particulate more toxic than lead.



***M.S.A. COMFO CHEMICAL CARTRIDGE**—For light concentrations of gaseous matter; particulate matter with filter.



M.S.A. GASFOE—Chemical cartridge protection against light concentrations of organic vapors, and acid gases.



***M.S.A. AIR LINE**—Complete, versatile protection in any atmosphere that is not immediately harmful to life.



M.S.A. PROTECTIVE HOODS—A variety of dust and paint hoods made of Dynel cloth or Vinyl plastic.

*U.S. Bureau of Mines Approved

There's an M-S-A **RESPIRATOR** for every **BREATHING HAZARD**

Because no *one* respirator gives the best protection for every job, complete selection is all-important. You get this advantage at M.S.A.

The variety of respirators described above will give you an idea of our complete line. At M.S.A., you can satisfy your specific requirements for breathing protection . . . get the respirator that's right for the job.

Important, too . . . M.S.A. Respirators provide the wearing comfort, low breathing resistance, and job visibility that encourage full-time respirator use. We'll be happy to give you complete details.



Call the M.S.A. man on your every safety problem . . .
his job is to help you

MINE SAFETY APPLIANCES COMPANY

201 North Braddock Avenue, Pittsburgh 8, Pa.

At Your Service: 76 Branch Offices in the United States

MINE SAFETY APPLIANCES CO. OF CANADA, LTD.

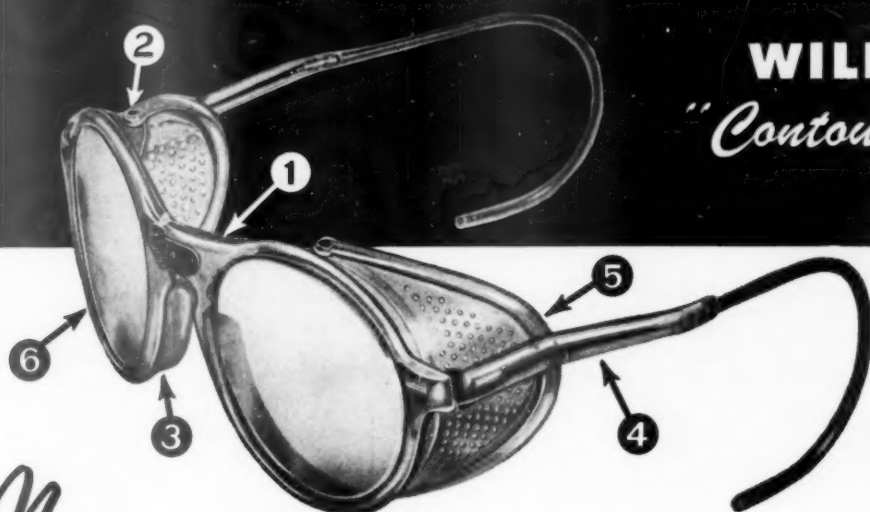
Toronto, Montreal, Calgary, Winnipeg, Vancouver, Sydney, N.S.

Representatives in Principal Cities in Mexico, Central and South America

Cable Address: "MINSAF" Pittsburgh



first really new development in safety spectacles in years!



WILLSON

*"Contour-Spec"**

Style WCS47
Covered by Design Patent 168,988

New... hinged bridge gives snug, comfortable fit . . .
self-adjusting to *any* facial contour!

- 1** New hinged bridge combines the flexibility of cup-type goggles with the lightweight, compact protection of safety spectacles.
- 2** One all-purpose size permits universal fit. Bridge hinge gives automatic adjustment to any bridge width from 18-26 mm.; one eye size—47 mm.—fits everybody. *No need to stock a variety of bridge and eye sizes.*
- 3** Plastic nose-and-cheek pads provide *full* closure around eye cavity.
- 4** Contour-shaped adjustable plastic-and-cable temples hold spectacles firmly in place.
- 5** Matching sideshields are perforated plastic, providing protection at sides—*fold back* for pocket compactness.
- 6** Butyrate frame—*toughest plastic used for spectacles*. Standard frame is flesh colored, fitted with 6-curve Willson Super-Tough® glass lenses. Available also with green frame and sideshields, fitted with Willsonite® Super-Tough green glass lenses.

Hinged to fit any face snugly!



*Trademark

Order a supply of Contour-Specs from your Willson distributor. Let your workers try their amazingly greater comfort, and see how they're preferred over ordinary safety spectacles!

More Than 300 Safety Products



Carry This Famous Trademark

WILLSON

Established 1870

WILLSON PRODUCTS, INC. • 205 WASHINGTON ST., READING, PA.

SAFETY NEWS

Published monthly by National Safety Council

SEPTEMBER 1954

THE COVER: Among those who contribute substantially to Nickel Plate's safety program are these men in the Bridge and Buildings carpenter shop at Conneaut, Ohio. Foreman Bruce Holcomb and Painter Edward Deiter are applying reflectorized coating so sign can be read at night. (Photo by Willis McCaleb, courtesy Nickel Plate Road Magazine.)

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genuine

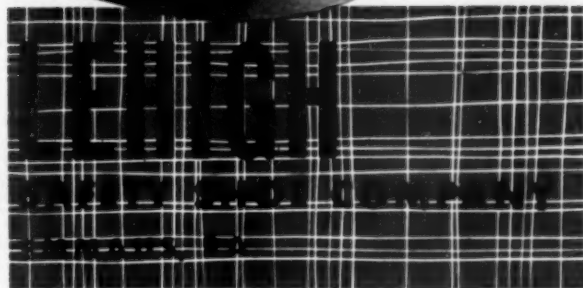
Scotch grain

only in safety shoes



Stock No. 1660

One of the stoutest of leathers — favorite with most men for Fall and Winter street wear. Now Lehigh builds it into a rugged safety brogue, with zebra storm welt and triple-stitched seams — that's smart as any dress shoe sold. Put a pair on display to see what's switching more men to safety shoes than ever before in history.





No G-26

Genuine Scotch
Grain • Brown •
Oak Leather
Soles with
Neolite Heels.

GUARD-AIRE

SAFETY

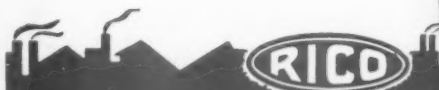
SHOES designed with the

Completely stitched with
thread of **DACRON***

**Fall Season
in mind**

Industrial men who wear and
appreciate the best in SAFETY SHOES prefer
GUARD-AIRE because of their superior quality,
comfort and trim seasonal smartness in styling
...rugged for work and styled for use after hours.

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and Colorful Catalog—
Write Today!*



RECORD INDUSTRIAL COMPANY

Dept. SG, 3301 ARCH ST. • PHILADELPHIA 4, PA.

*Dupont Polyester Fiber

COPPUS "BLUE RIBBON" VENTILATORS

Identified by the blue band

FOR WORKERS'

- Safety
- Health
- Comfort
- Efficiency

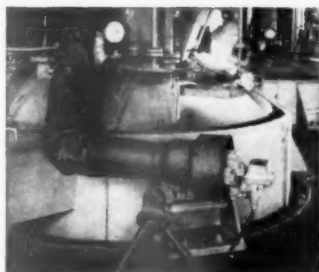
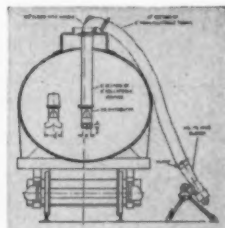
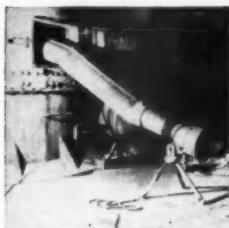
VANO® Design "A" VENTILATOR



Vano Design "A" cooling interior of furnace, supplying fresh air through 10 feet of "Ventube" to provide safety and comfort during repair work.

Vano Design "A" delivering fresh air to cable manhole, expelling sewer gas, making entrance safe in a few minutes.

Vano Design "A" Ventilator plus a few accessories feeds large air volume into tank car, driving out fumes, stagnant or hot air for workers' safety and comfort.



Vano Design "A" supplying fresh air in Reactor Room of Synthetic Rubber Plant.



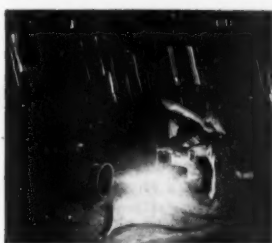
Vano Design "A" Ventilator supplying fresh air to men working in wing compartments, fuselages, etc.

Powered by a 1/2 hp motor, and equipped with the exclusive Coppus axial-flow propeller-type fan, this general-purpose blower delivers 1500 CFM of fresh air. It supplies ventilation for tanks, tank cars, drums, vats, underground cable manholes, pipe galleries, airplane wing compartments and fuselages, and other confined places. Weighs only 103 lbs. Uses 8" -diameter flexible canvas tubing ("Ventube").

VANO DESIGN "C"



VENTILATOR-EXHAUSTER



Vano Design "C" equipped with 8" discharge tubing removing welding fumes.



Vano Design "C" equipped with two suction lines removing welding fumes for operators' safety.

For withdrawing welding fumes from confined places or directly from the welding rod ...or for expelling fumes or hot air from enclosed vessels. You can get it with 8" suction inlet for 8" non-collapsible tubing ...or with multiple inlet nozzles for 5", 4" or 3" suction hose. The discharge outlet takes 8" "Ventube". Powered by a 1/2 hp motor, it weighs only 85 lbs.

COPPUS ENGINEERING CORP., 129 PARK AVENUE, WORCESTER 2, MASS.
Please send information on the Blowers that clear the air for Action.

- ☐ in tanks, tank cars, drums, etc.
- ☐ in underground cable manholes.
- ☐ in aeroplane fuselages, wings, etc.
- ☐ on coke ovens.

- ☐ on steam-heated rubber processes.
- ☐ on boiler repair jobs.
- COOLING:**
- ☐ motors, generators, switchboards.
- ☐ wires and sheets.

- ☐ general man cooling.
- ☐ around cracking stills.
- ☐ exhausting welding fumes.
- ☐ stirring up stagnant air wherever men are working or material is drying.

(Write here any special ventilating problem you may have.)

NAME
COMPANY
ADDRESS
CITY

COPPUS "BLUE RIBBON" PRODUCTS—Designed for Your Industry, Engineered for You

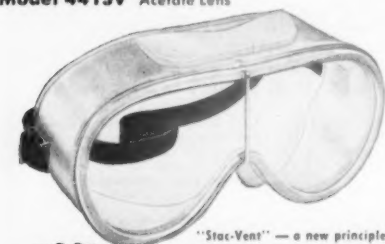
SAFETY GOGGLES | SAFETY SPECTACLES

**FORM FITTING
COMFORTABLE**



**LIGHTWEIGHT
EASY TO WEAR**

Model 440SV Methacrylate Lens
Model 441SV Acetate Lens



**Soft
Vinyl
Frame**



"Stac-Vent" — a new principle in goggle ventilation. Clearer Vision . . . More Comfort . . . Greater Safety. Large frame fits comfortably over all prescription glasses. Lenses optically correct — shatterproof — easily replaced. Also available with regular or screen ventilation.

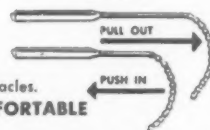
Model 415



Tuc-Away

Shatterproof, optically correct lenses. Easily replaced . . . snap-in, snap-out. In clear, light, medium or dark green. One size and model fits every worker. Wearer adjusts and maintains his own spectacles.

WORN BECAUSE THEY ARE COMFORTABLE



Model 442



**Soft Vinyl Frame
50 mm Round
Hardened Safety
Glass Lenses**

Maximum protection where there is extreme abrasion. Maximum comfort and minimum weight. Large size, fits over all prescription glasses.

Visor-Tuc

**New Over-Eyes
Protection**



Almost 100% protection, plus all the comfort of "Tuc-Away". "Visor-Tuc" fits snugly against the forehead. Shatterproof Eye Savers lenses interchangeable in Tuc-Away Model.



Model 422

Model 492



**Welding Goggle
Opaque Black
Soft Vinyl Frame**

Furnished with replaceable 50 mm round, Federal Specification, filter lens shades 3, 4, 5 or 6, protected inside and out by cover lenses.

Split Joint

Split Joint Frame makes changing lenses a simple operation, no heating to distort frame. Retrax temple easily adjusted — One size Standard 47 mm drop eye lenses. Removable clip-on side shields available.



Quick, easy replacement of:
PLASTIC SAFETY LENSES
PRESCRIPTION LENSES
PLANO SAFETY GLASS LENSES



Model 80

Model 99



**Cheepie
One-Piece
Goggles**

Close fitting, lightweight, comfortable. Optically correct . . . no distortion. Available in clear or medium green.

**Methaspec
Eye Shield**

Optically correct, one piece, curved Methacrylate Eye Savers Lens provides heavy impact protection. Lens is .080" thick, available in clear or light, medium and dark green.



Model 55

For details, see your Authorized Eye Savers Supplier or write direct

Quality Eye Protective Equipment

Made by the Leaders in Plastics



WATCHEMOKET OPTICAL CO., INC.

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In Canada: Levitt-Safety Limited, Toronto 10, Montreal 26

worth blowing about...



THOM M'AN'S r-r-rugged scotch grain



4208

Rugged SCOTCH GRAIN in ever popular straight tip. Medium brown color. Leather lined steel toe box. Oak bend leather sole, rubber heel.

This fine Scotch Grain looks rich and handsome, wears long and well. Yet with all its he-man ruggedness, Scotch Grain is famous for its comfort on your foot. Especially in the easy-going, firm-fitting blucher last you see here. And like all Thom McAns it offers top protection. What a combination of good looks and safety. Your men will want a pair on sight.

P. S. —The price is as Scotch as the Grain!

SOLD 2 WAYS

1. At Thom McAn stores.
2. Direct to your plant.

Write today for details of this last-named service and Thom McAn's 4-way employee purchase plan, plus descriptions of the full line of Thom McAn Safety Shoes to . . .

THOM McAN SAFETY SHOE DIVISION
25 West 43rd St., New York 36, N. Y.

Thom McAn
SAFETY SHOES

A Division of Melville Shoe Corporation
25 West 43rd Street, New York City

Bump that assures positive results

When fire strikes, seconds count... your fire extinguishers must be the right type and function properly from the very start... failure means serious losses.



The growing popularity of the highly effective powdered dry chemical fire extinguishing agent may be hampered by a drawback...settling or packing can occur after a lapse of time. However, with C-O-TWO Dry Chemical Type Fire Extinguishers there's no chance of this happening.

The exclusive inverting and bumping design of C-O-TWO Dry Chemical Type Fire Extinguishers provides mechanical breakage of the dry chemical by shifting its position in the cylinder. This outstanding mechanical breakage, plus continuous inert gas pressured agitation or fluffing of the skillfully blended free flowing dry chemical, guarantee lasting, foolproof fire protection.

No other brand on the market today gives you this extra margin for positive results. Inverting and bump-

ing is only one of many unique design advantages that make C-O-TWO Dry Chemical Type Fire Extinguishers your best buy for killing flammable liquid and electrical fires, as well as surface fires involving ordinary combustible materials.

With C-O-TWO Dry Chemical Type Fire Extinguishers the heat-shielding dry chemical is a non-conducting, non-abrasive, non-toxic, finely pulverized powder compound... blankets fire instantly. Sizes range all the way from 4 to 150 pounds capacity... all fully approved by the Underwriters' Laboratories, Inc., Factory Mutual Laboratories and Government Bureaus.

Act now for complete free information on these top quality, sure-acting fire extinguishers. Remember fire doesn't wait... get the facts today!



MANUFACTURERS OF APPROVED FIRE PROTECTION EQUIPMENT

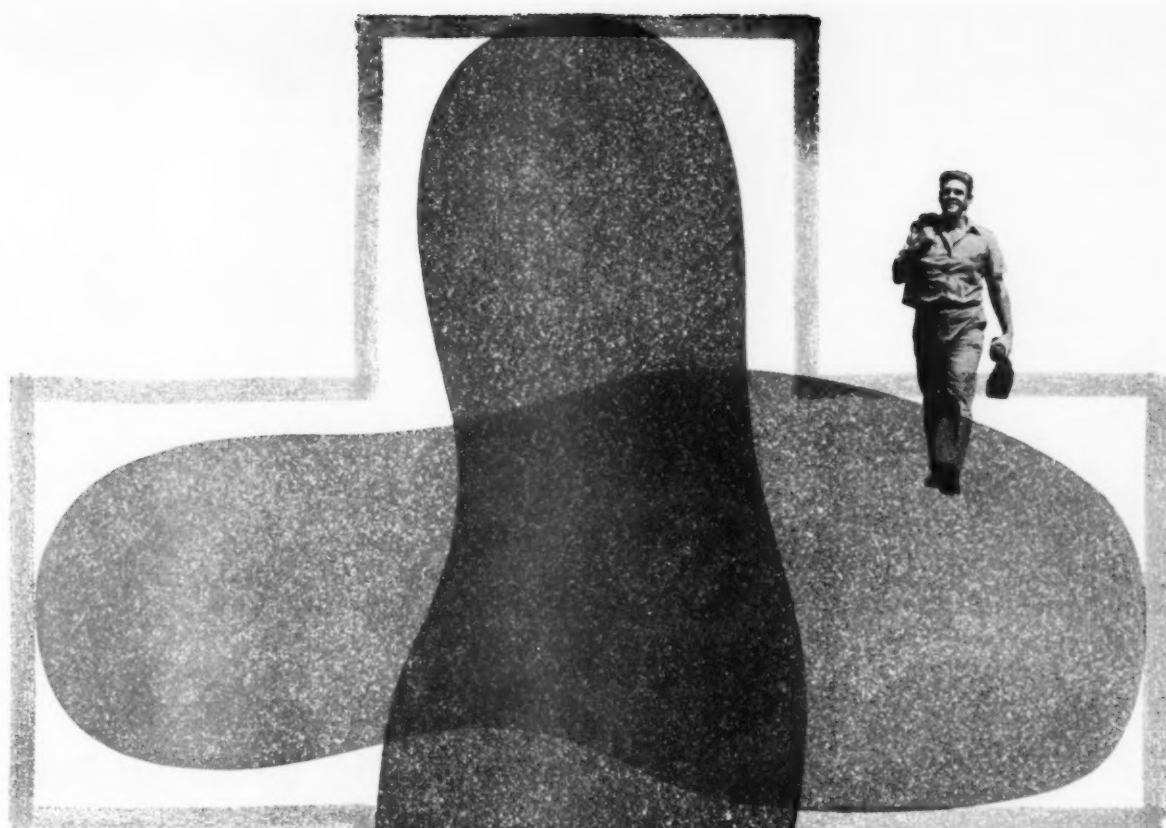
Squeeze-Grip Carbon Dioxide Type Fire Extinguishers
Dry Chemical Type Fire Extinguishers
Built-In High Pressure and Low Pressure Carbon Dioxide
Type Fire Extinguishing Systems
Built-In Smoke and Heat Fire Detecting Systems

C-O-TWO FIRE EQUIPMENT COMPANY NEWARK 1 • NEW JERSEY

C-O-TWO FIRE EQUIPMENT OF CANADA, LTD. • TORONTO 8 • ONTARIO

Sales and Service in the Principal Cities of United States and Canada

AFFILIATED WITH PYRENE MANUFACTURING COMPANY



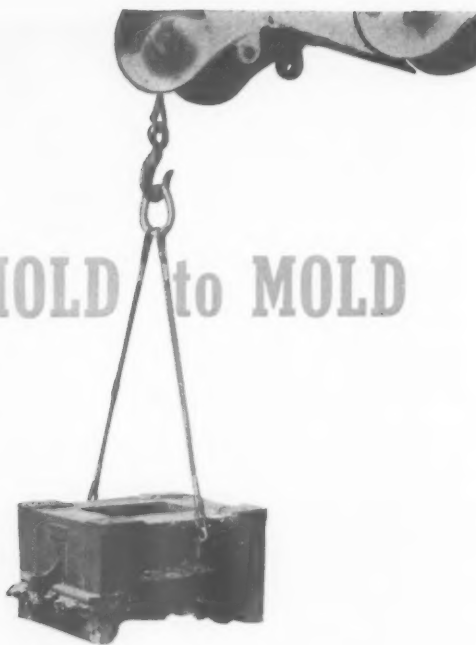
**SAFER
SAFETY SHOES
HAVE VUL-CORK OR
VUL-CORK NEOPRENE SOLES**

Vul-Cork Sole Division, Cambridge Rubber Co., Taneytown, Md., makers of **Vul-Cork®**
... so light, so flexible, so resilient ... you can roll them up right in the palm of your hand.



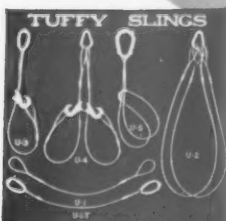


From **HOLD** to **MOLD**

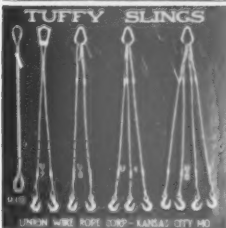


NEW
Tuffy
HOIST LINE

Tuffy
SLINGS

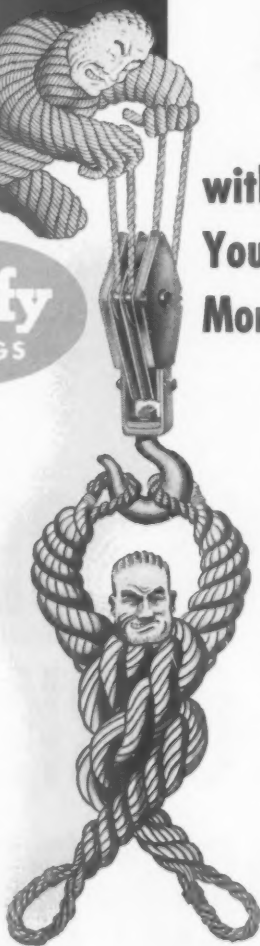


UNION WIRE ROPE CORP. - KANSAS CITY, MO.



UNION WIRE ROPE CORP. - KANSAS CITY, MO.

Yours For The Asking! 48-page Sling Handbook and Rigger's Manual, containing plenty of useful information! Write for your copy, and complete information on Tuffy Hoist Lines!



with this **Tuffy Team**,
You Can Pick Up and Set Down
More Loads Longer

Tuffy Slings and Tuffy Hoist Lines have given the industry a team that is setting new performance records every day all along the *materials handling line*. Time after time, users report sling costs greatly reduced . . . hoist line service way up over any other rope!

Special Purpose Construction is the reason for the extra service given by the Tuffy Team! **TUFFY SLINGS** are made of a patented, 9-part machine braided wire fabric that stays extra flexible. Will not materially damage fabric when kinked or knotted. **TUFFY HOIST LINES** are designed to give the same flexibility, plus an amazing toughness to absorb load shocks and let Tuffy pass safety checks long after other ropes would be discarded!

See The Difference the Tuffy Team can make in your operating cost on stiff leg, overhead or mobile cranes, derricks or clamshells!

SEE HOW MUCH MORE VALUE A TUFFY DISTRIBUTOR CAN GIVE YOU

For Tuffy Hoist Lines, just give the length, diameter . . . for Tuffy Slings, the diameter, length and any of the sling types shown at left. But always say Tuffy!

union



Wire Rope **corporation**

2224 Manchester Ave. • Kansas City 26, Mo.

Specialists in High Carbon Wire, Wire Rope and Braided Wire Fabric

OLD-FASHIONED INDUSTRIAL WIPERS STEALING YOUR PROFITS ?



Modernize your shop — save money — with new

Type 1300 KIMWIPES!

You'll be money ahead when you switch to Type 1300 Kimwipes. They're the modern new disposable wipers that actually replace old-fashioned cloth and waste wiping material and cost four to ten times less!

New Kimwipes 1300 are soft. Strong. Absorbent. A full 12"x 18" in size, they hold up to 8 times their own weight in liquids. They're non-abrasive, too. There's no holdover of metal chips or other infectious material that may cause dermatitis and loss of man hours. Type 1300 Kimwipes are absolutely clean to start with, and are disposed of after use. Ask your salesman for samples. And remember, there are two other kinds of Kimwipes you can choose from: Type 900-S (optical wipers) and Type 900-L (regular wipers). Save money. Order today!

Kimberly Clark
KIMWIPES
Kimwipes

Kimberly-Clark Corporation • Neenah, Wisconsin



How to put **SAFETY** on every worker's lips

You can't repeat your safety messages too often. And a good way to get in several extra ticks a day is to use Continental's Safety Slogan hot drink cups. Each attractive cup delivers two practical safety messages that are brief, right to the point, and not a bit preachy. And these messages reach your worker at snack or meal times when he is relaxed and friendly.

QUICK DATA: Safety slogan cups are available in 6-, 8-, and 12-oz. sizes. Made of virgin pulp with double-wrapped sidewalls that won't leak... keep hot liquids really hot. Series of three cups (two messages to each cup) packed in rotation for variety.

Safety engineers from many plants where Safety Slogan cups are regularly used tell us these little messages from "Oscar the Life-Guard" are particularly acceptable to workers.

They can help you put your points across too. Ask your paper jobber for full details or write Continental today.

 **Continental**
CAN COMPANY

Paper Container Division
349 Oraton St., Newark 4, N. J.

BOSTON • PHILADELPHIA • CLEVELAND • CHICAGO • NEW YORK
KANSAS CITY • ATLANTA • LOS ANGELES • SAN FRANCISCO



NEW!
PENOPTIC
SAVE WITH SAFETY

**WELDERS'
 AND**

CHIPPERS' CUP-TYPE SAFETY GOGGLES

At Manufacturer-To-You Savings!



MODEL 500



MODEL 900

Welders' Model 500. Brown opaque thermoplastic cups with side shields and lens retaining rings providing indirect ventilation to prevent fogging and light penetration. Regular or heat-treated welding lenses in shades 3 through 10.

Chippers' Model 900. Brown opaque thermoplastic cups with 3-way ventilation. Flat or curved impact-resistant safety lenses in clear or absorptive green. Additional models available in clear or transparent green plastic cups.

- Durable Thermoplastic Cups
- Aluminum Lens Retaining Rings
- Molded Rubber Headband
- Standard 50mm Lenses
- Improved 3-Way Ventilation
- Wide-Angle Vision

Achieved! Greater comfort for welders and chippers in these two new Penoptic goggles with contour-fitted eyecups designed so that only smooth, broad, rolled edges cushion all contact with the face as they seal the eye orbits in complete safety. Construction features include metal reinforcing rings molded into inner rim of each cup to insure retainment of original cup thread dimensions under all conditions. Aluminum lens retaining rings are threaded to permit easy lens replacement without tools. Proper arrangement of ventilating areas prevents fogging . . . makes possible an exceptionally shallow cup depth to provide wider angle of vision. It all adds up to immediate and permanent worker acceptance . . . **AT LOWER COST . . .** through Penoptic's manufacturer-to-you distribution.

For prices and full information write directly to **Pennsylvania Optical Company, Reading, Pa.,**
 or **1712 Taraval St., San Francisco 16, Cal.**

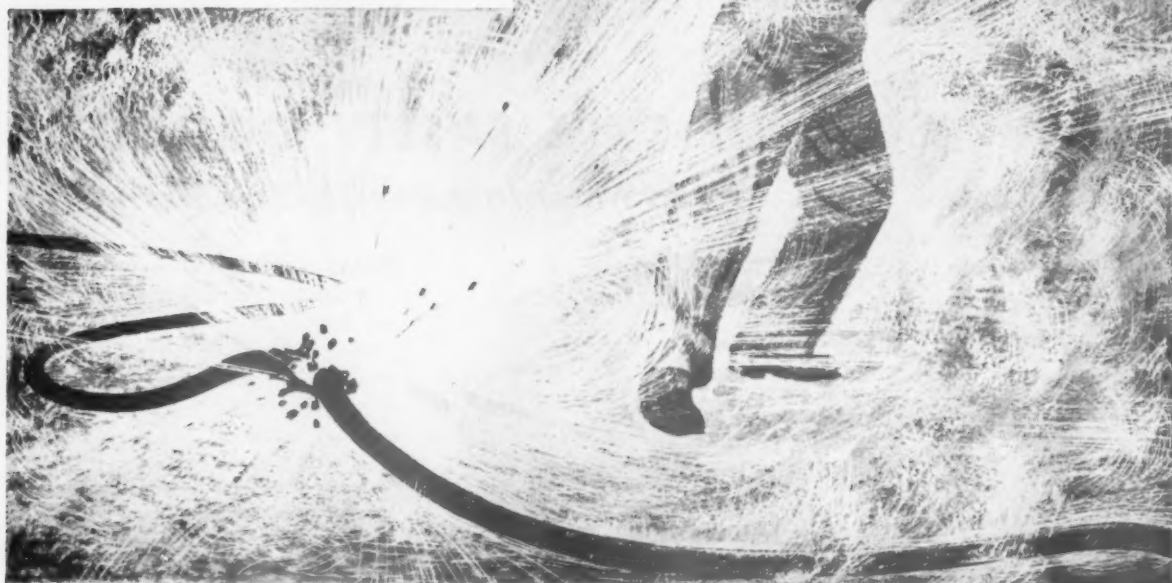
*Order Direct
 and Save!*

PENNSYLVANIA OPTICAL COMPANY

READING, PENNSYLVANIA

Known For Fine Ophthalmic Products Since 1886

Steam can **KILL**



Tame it with **HY-TEST** Hose!



NYB&P's **HY-TEST** hose is built so that it just can't burst and spray out superheated steam—steam that can badly scald and *even kill!*

This unique steam hose is reinforced with several rubber-encased plies of closely-woven braided *steel wire* that positively prevent sudden failure—at working pressures up to 200 pounds! After long and severe service, harmless seepage through these blowout-proof plies provides ample warning of the need for replacement.

Add to this safety feature a specially-compounded steam-resistant inner tube, a breaker ply of spiraled asbestos cord that keeps the outer surface cool, and an extra tough, abrasion-resistant cover and you have a super-service, super-safe hose for superheated steam: **HY-TEST** steam hose!

Such advanced industrial rubber products as Gilmer "Timing"® Belts, Resistorip Conveyor Belting and **HY-TEST** Hose are available only from NYB&P Distributors. For name of your nearest distributor, write us . . . or phone PRescott 7-6940, Passaic, N. J.

NYB&P

NEW YORK BELTING & PACKING CO. 1 Market St., Passaic, N. J.

America's Oldest Manufacturer of Industrial Rubber Products



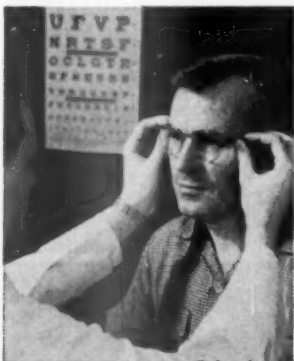
SAFETY LENS QUALITY IS NEVER A LUXURY



Bausch & Lomb P-57 safety glass with absorptive Ray-Ban Bal-SAFE lenses.



So workers see better! Bal-SAFE industrial lenses are finished to the same critical standards as regular corrective lenses.



Where visual correction is needed, there's extra safety in Bal-SAFE lenses professionally prescribed, ground to the worker's prescription.

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national SAFETY NEWS

SEPTEMBER 1954

Good Neighbors

MY DAD is not replaceable, like machinery," wrote 11-year-old Richard Brannon in a company-sponsored essay contest. "I need him to help me grow up to be a useful citizen."

"To our family, Dad is the most important member," wrote 13-year-old Rosemary Werth in the same contest. "He's the chief engineer and foreman for our little tribe. So what happens at Atlantic Steel Company between breakfast and the evening meal is very important."

"Without his knowledge, I watched Daddy for several days and noted his concern over mother on the stepladder and my broken skate wheel. I've seen him fixing a loose electric light switch."

"I know my Daddy practices safety at home. Why? Because his first concern is for his loved ones. Carrying safety habits to work is just as important. In practicing safety rules at work my Daddy could easily start a chain reaction which would not only benefit each fellow worker but Atlantic Steel Company as well."

"As my Dad always says: 'Safety is like eating; the more you practice it, the more you gain.'"

Daddy, obviously, learned some important things on the job.

These loving tributes to Dad express something basic in accident prevention work—the element that gives it such a strong emotional appeal.

These essay contests on the general theme, "What It Means to Me to Have My Dad Work Safely," have been popular for years and the benefits have been far-reaching. They have brought the employer and the employee and his family closer together. The youngsters get a better understanding of industry, particularly when the contest is accompanied by a trip through the plant. And usually there is some token recognition for contestants who don't win.

When a gem of wisdom is expressed by a youngster, one may suspect he had some coaching. Mother, Dad, older brothers and sisters, and sometimes teacher, often have a hand in the project. That multiplies the effectiveness of the contest. But we sometimes forget that kids have more insight than we give them credit for.

Throughout industry there has been a growing conviction that safety is a 24-hour proposition, one that covers not only the employee on and off the job but his family and neighbors as well. Likewise industry has come to realize that getting the family interested in safety has a strong influence on the head of the house, both at work and after hours.

The impersonal, anonymous structure of a corporation sometimes obscures the fact that it is also a citizen, a taxpayer and a neighbor as well as a meal ticket for adult members of the community. And as a good neighbor it is actively interested in the development of a safer home town, working both through community safety organizations and through the employees and their families.

Conservation at Copper Basin

By CARMAN FISH

Protection for workers, economic use of mineral resources, and reclamation of land are all involved in a far-reaching program

A TOURIST rolling along Highway 64 gets a rude shock as he approaches the section where Tennessee, North Carolina and Georgia meet. After passing through the beautiful Cherokee National Forest on the west or the scenic Nantahala Gorge on the east, he finds himself suddenly in a region of eroded red hillsides, bare of vegetation except in a few spots where a Loblolly pine or a few sparse tufts of grass are struggling to make a comeback. It reminded me of the shell-blasted Souchez Valley and Vimy Ridge back in 1918.

Here in the Ducktown Basin—Copper Basin, as they now call it—is a wasteland with immense wealth underground. Under the red clay are apparently inexhaustible deposits of copper ore.

And in this region, a three-phase conservation program is being conducted by Tennessee Copper Company—land reclamation, utilization of by-products of natural resources, and not least important, protection of the men who mine and process the ore.

A hundred years ago, the Copper Basin was as green and fertile as the area rimming it. Then came a program of wasteful exploitation all too common in American industry during the last century. The complex sulfide ore was roasted on open fires to remove the sulfur before the ore received further treatment. The surrounding countryside was

drenched with sulfur dioxide, working terrible damage to vegetation.

To feed the fires, the operators stripped the surrounding hills of trees and none were planted to replace them. Further desolation was caused by cutting and burning off the sedge grass that protected the soil. Year after year, tons of sulfur dioxide descended on the remaining plant life which finally gave up the struggle. The Basin became a desert. Just what

the gases did to the lungs and bronchial tubes of the people who worked and lived there is not on the records. It can only be imagined.

The damage occurred between 1854 and 1904, and Tennessee Copper inherited the mess. Since then, conspicuous progress has been made in rehabilitating the area, comparatively little of which is noticeable from Highway 64.

Tennessee Copper Company, a subsidiary of the Tennessee Cor-



Back of Tennessee Copper's steady progress in accident reduction has been the continued support of top management, represented by T. A. Mitchell, vice-president and general manager (left) and R. R. Burns, manager. Mr. Mitchell recently received an award from the Joseph A. Holmes Safety Association for 40 years of service to safety as worker, supervisor and manager.



Aerial view of Copperhill plant of Tennessee Copper Company. The large smelter stack, long a landmark in the Copper Basin, was recently torn down. The huge lead-chamber structure at the plant is the lead-chamber acid plant.

A railroad with 26 miles of standard gauge track is operated by the company, connecting with the Knoxville & Nashville. Here, ore concentrates are being loaded from the Lanesville mill to the operating department for further processing.



poration, took over operations and a new life began for the area. Within six years the destructive and wasteful open-roast era came to an end. By 1908, the

company's engineers and chemists had devised ways of trapping the sulfur dioxide smoke. A lead chamber acid plant was erected and T. C. pioneered in the pro-

duction of sulfuric acid from blast furnace fumes. A community nuisance and menace was killed and a product indispensable in modern industry was conserved.



Several years ago, Tennessee Copper started giving away a pound of coffee to each member of a department operating a specified period without a disabling injury. The company has kept up the custom in spite of the soaring price of coffee.

Safety awards on display in the office of the safety department. Sixty had been acquired when this picture was taken and several more have been added since. Among the trophies is the National Safety Council's top award, "The Award of Honor," which has been won four times.

Wealthy Wasteland

The Copper Basin is an area of 100 square miles, principally in Polk County, Tenn., and extending into Fannin County, and Cherokee. Center of Tennessee Copper's activities is the town of Copperhill, with neighboring towns of Ducktown and Isabella in Tennessee, and McCaysville, just over the Georgia line. Population of the area is slightly more than 12,000 with some 2,000 employed in mining and processing the ore.

These are communities of well-kept, comfortable homes, a large proportion of them owner-occupied. They are definitely not "company towns," although T. C. does operate some rental property.

In the Basin are lawns, trees, shrubs and gardens, and with liberal applications of lime and fertilizer the soil becomes quite productive. Basinites point with pride to the millions of Virginia and Loblolly pines planted co-operatively with the Tennessee Valley Authority and some patches of grass which are getting a foothold on the eroded hillsides.

All mining is underground. The Basin is dotted with headframes of the mines, flotation plants, roasters, sintering plants, and reverberatory furnaces, converters and acid plants which extract an amazing variety and quantity



of valuable by-products that have contributed to the Basin's prosperity.

From the sulfide ore, averaging less than one per cent of copper, come sulfuric acid, liquid sulfur dioxide, copper sulfate, insecticides, fungicides, fertilizers, iron and zinc. Iron sinter, equal to high grade iron ore, and the zinc content, removed from the raw ore by selective flotation, are sold to outside smelting companies. These metals were once lost in the then worthless slag. The remaining slag is now granulated

for use as an ingredient in cement.

The company also operates a standard gauge railroad 25 miles long which connects with the Louisville and Nashville to ship out vast quantities of the company's products.

Many developments vital to modern industry in peace and war have come from the Tennessee Corporation's research laboratory at College Park, near Atlanta. Every possible use for raw materials is explored and the limit is not yet in sight.

T. C.'s constant war on waste



Sam Sharp, T. C.'s safety director, has evidently heard good news—probably the winning of another safety trophy.

includes the prevention of accidents in underground and surface operations and throughout the communities of the Basin.

As evidence of the continuing effectiveness of the campaign is the display of trophies which covers a large area of wall space in the general office building. Among these are four Awards of Honor — the National Safety Council's top award, and several from the U. S. Bureau of Mines.

For the two years, 1952-53, T. C. had a frequency rate of 2.3 and a severity rate of 2.31—less than half the company rates for the



Pine trees in increasing numbers are clothing the barren red hillsides of Copper Basin. More than two million trees have been planted cooperatively by Tennessee Copper and Tennessee Valley Authority. Here Joe Williams, the company's outside properties man, is inspecting their growth.



comparable preceding period and far below the national average for underground metal mines.

Power plant for the safety drive which comprises the entire T. C. organization from the general manager's office down to the 2,400-foot level is the safety engineering department headed by Samuel E. Sharp, a veteran of

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A versatile underground repair crew is an aid to both operating efficiency and safety. Here, the repair crew is at work in pump room of Isabella Mine. This is a standby pump for use in case of failure of large pump at upper right. Pumps are adequate to take care of flooding which might occur during heavy rains.



A small plant manager with as many arms as the goddess Durga might be able to handle the varied problems of his business. (The hand tools, incidentally, are not standard equipment. They were added by an imaginative artist.)

The Small Plant's Dilemma

By JAMES P. HUGHES, M.D.

It needs health-safety service at moderate cost. Here's how it's done in Cincinnati

THE Hindu goddess Durga should be a natural as manager of a small industrial plant. The lady has ten arms. If she could bring all of them to the office with her, she would have almost enough hands to go around to all of her tasks of Production, Personnel Supervision, Maintenance, Engineering Development, Quality Control, Plant Protection, Purchasing, Accounting, Shipping and Labor Relations. With just one more arm, she probably could handle Employee Health and Safety as well.

In the one-man organization, the boss often has to look after all of these things. It's not surprising that he doesn't always get to dealing with health and safety matters in any really effectual way. Other things constantly are pressing for his attention. Besides, usually he believes that his plant of 150 or 200 employees doesn't have "very many" injuries.

Yet, on the basis of relative exposure to hazards to health, the small plant often is quite a hazardous place. For a given indus-

try, just about all of the hazards of the larger plant are present in the small shop, and are more likely to go unrecognized. The only difference lies in the numbers of people exposed to hazards. But where is the small plant operator to find the specialized help to deal with problems of health and safety?

The Cincinnati Program

In Cincinnati, a private practitioner suspected that his patient was suffering from excessive absorption of lead. He referred the patient to a laboratory where the diagnosis was confirmed. The man was a spray painter in a small ceramics plant. He said that he worked only at a ventilated spray



Sample air at breathing zone of paint sprayer. Analysis disclosed large concentration of lead. Exhaust fan was not effective in removing paint mist from booth.

DR. JAMES P. HUGHES is Director, Bureau of Industrial Health, Cincinnati Health Department.

booth, but he didn't know what kind of paint was used. The physician looked over the laboratory reports and called upon the Bureau of Industrial Health of the Cincinnati Health Department to determine where and how this man could have absorbed substantial quantities of lead.

The Health Department physician in charge of the Bureau visited the plant, and found that the man did work at a spray booth that was equipped with a large exhaust fan. But a fine mist of paint spray hung in front of the booth when glass discs and bowls were sprayed, because the spray was deflected off the work back toward the operator, rather than being caught by the exhaust stream at the face of the hood.

An industrial hygiene consultant to the Bureau collected samples of dust from the rafters above the front of the booth, and found that these contained nearly 10 per cent lead. Air sampling at the breathing zone of the spray booth operator indicated that he was exposed to a concentration of lead 300 times in excess of that which is generally accepted as tolerable for repeated exposures.

Immediate recommendations were made for increasing the effectiveness of the exhaust system, for properly placing the work in the spray booths to avoid splashing, and for providing the operators with light-weight, clear plastic hoods supplied with fresh air. Additional cases of lead poisoning were prevented.

This is a typical example of the team work approach to the identification of the source of an occupational illness, and for finding a solution to the problem of control. The entire investigation was carried out locally and was completed within a few days after the man consulted his physician. The result was protection of the health of several people, provision of a valuable consultation service to the physician, and a helping hand to the manager of the plant with a knotty technical problem that

Launching a Small Plant Health-Safety Program

- A. Gain support of these local groups:
 1. Medical Society
 2. Health Department
 3. Health Council
 4. Safety Council
 5. Chapters of safety, personnel, and management societies
 6. Chamber of Commerce
 7. Trade and Business Associations
- B. Designate a "Ram-Rod"—volunteer or paid
Preferably an experienced physician, industrial nurse, industrial hygiene engineer, or safety engineer.
- C. Establish one or two sound in-plant programs as pilot plans, using these for demonstration purposes, and as local prototypes of good health and safety practice.
- D. Keep emphasis on prevention rather than treatment.
- E. Appraise carefully each interested plant, and tailor health and safety services to specific needs. Take into consideration:
 1. Nature of industry: manufacturing, service; light or heavy.
 2. Environmental factors: hazardous processes and mechanical devices; occupational exposures to extremes of temperature, noise, irritating or sensitizing materials, dusts, vapors, and mists.
 3. Existing facilities: medical, sanitary, safety.
 4. Character of the work force: age, sex, length of service, attitudes.
 5. Existing health and safety records, as an index to past experience (probably none available).
 6. Designing services to meet the need:
What kind and how much?
Who will render recommended services?
What special training may the selected health and safety personnel require?
 7. Develop a sound system of records for charting progress, and get to work!

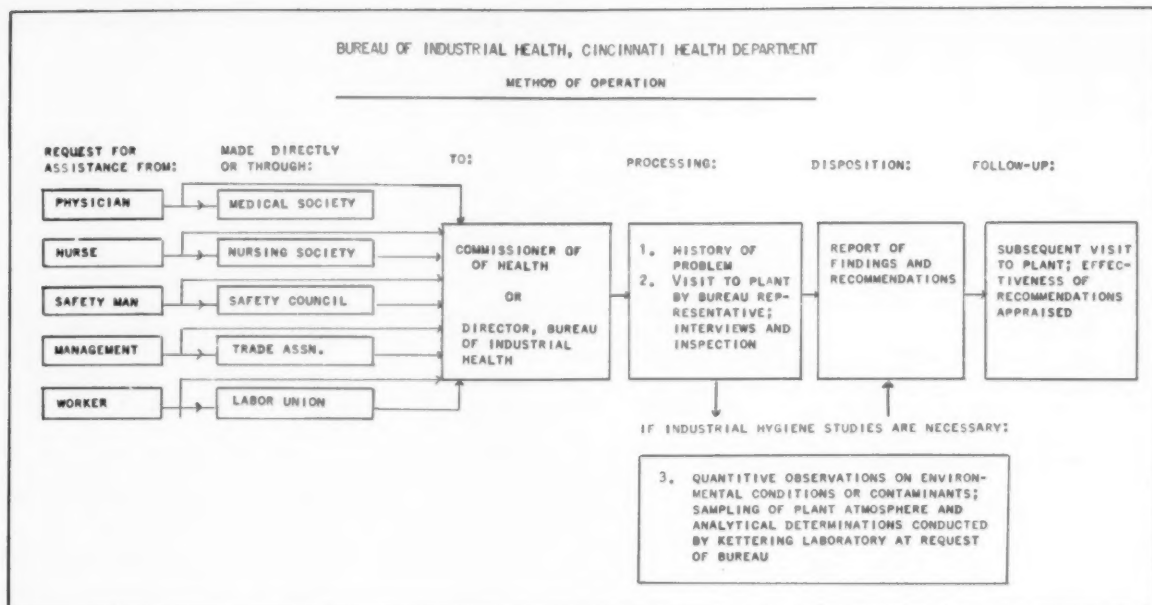
his small organization was not equipped to tackle.

Cincinnati is a community of predominantly small industry. There are a few large companies in the chemical and machine tool industries. But most employed persons work in small businesses or plants. It has always been a problem to extend to these small units the same high calibre of health protection and safety practice that is now available to workers in most larger plants. To say that it is up to the small employer to find some way to provide these things, and let it go at that, probably is a waste of breath.

The truth is that few small employers are aware of many of the hazards that exist in their plants, or they don't know what to do about the ones that are recognized. Rarely do they have any idea of how they can get practical help at a cost that they can afford. The law of supply and demand

works here, so that relatively few safety, industrial hygiene, nursing or medical people devote themselves to the health protection problems of the small business. The result is reflected in the acknowledged high rates of injury and occupational disease in small plants.

This gap in health protection coverage is a worrisome piece of unfinished business to health and safety leaders in many cities. In Cincinnati, the Public Health Federation, one of the nation's pioneer community health councils, began to probe the problem several years ago. Together with the Cincinnati Health Department, and with representatives from the Academy of Medicine of Cincinnati, from the Department of Preventive Medicine and Industrial Health in the College of Medicine of the University of Cincinnati, from the nursing groups and from among business



leaders, a Committee on Industrial Health was formed within the Federation. The Committee began to thrash out the questions of what health services would be needed by Cincinnati's small industries, how these services could be provided, and how they could be paid for.

An early handicap was a shortage of trained personnel familiar with the hazards of local industry and the measures for their control. It was recognized that the cost of developing adequate facilities should be borne by industry, since industry had created the hazards and would derive the greatest benefit from their control. But it also was apparent that there would have to be collected enough factual information on the scope of the problem to demonstrate to local industry the need for their support. The Cincinnati Board of Health accepted the challenge that, as a matter involving the large numbers of citizens, the identification of occupational health hazards justifiably comes within the interests of the City Health Department.

At about the same time, in the summer of 1952, a physician who had completed the graduate train-

ing program at the University's Institute of Industrial Health became available to supervise the activities of the Health Department's newly established Bureau of Industrial Health.

An important part of a sound industrial health program is the provision of equipment for the collection of samples of contaminated air in industrial plants and specialized laboratory facilities for their analysis. The modest



Front view of protective hood. It is light in weight, comfortable, and provides good visibility for the wearer.

budget allotted for the program in Cincinnati would have been exhausted in equipping a laboratory, and until the activities of the Bureau became firmly established, these expensive facilities might be partly idle.

A contract was drawn up between the City of Cincinnati and the University of Cincinnati making the industrial hygiene facilities of the Kettering Laboratory in the Department of Preventive Medicine and Industrial Health of the University's Medical College available to the Bureau of Industrial Health at cost and on an "on call" basis.

Funds were provided in the budget of the Cincinnati Health Department to meet this need. These funds are expended only upon services required to identify hazards in the plant and to demonstrate the need for definitive control measures in the protection of citizens while they are on the job. Cost of control measures is borne by the plant as a legitimate charge of production, although continued technical guidance is available. The Bureau provides no medical service in industry since private medical care does not lie within its scope.

The study of lead poisoning described previously was executed under this arrangement by a team of technically trained persons, each making his specialized contribution—engineering, or analytical, or medical.

Bureau of Industrial Health

The Bureau was set up to provide three major types of service:

1. The identification and appraisal of suspected hazards to the health of employees in industrial plants, businesses and laboratories, especially those so small that adequate control measures have not been developed by them.

2. The planning and development of in-plant health and safety programs, to be established by an individual company, or by groups of cooperating plants, as the best long-term solution to the problem of employee health maintenance in the small organization.

3. Assistance to private physicians in dealing with occupational diseases. The Bureau provides technical information on industrial health matters to other professional persons in the community.

Early in the operation of the unit, it became apparent that each problem had many aspects, including not only medical and hygienic factors, but those of industrial safety practice as well. These aspects usually were inseparable, and often did not justify consultation with a different specialist for each facet. Safety services, however, frequently were in demand.

Inspection of mechanical equipment or recommendation of protective clothing for hazardous jobs were not the only needs. More commonly, discussion with management and employees of general principles of safety practices, and development of an effective plant safety program was required. The physician or the industrial hygiene engineer, called to a plant to survey a purely industrial health problem, often recognized the need for a coordinated health and safety approach. But how was this advice to the small plant in the increasingly specialized field of accident prevention to be provided?



Paint sprayer fitted with air-supplied plastic hood. Work easel moved to rear of booth. With these measure lead exposure was brought under control.

In the summer of 1953, the physician who directs the Bureau enrolled for the course on "Fundamentals of Industrial Safety" at

the National Safety Council's Training Institute. The time spent with the Council staff who served as instructors, and with the group of practicing safety men who attended the course, provided a foundation upon which some sound safety experience could be built. Since that time the Bureau of Industrial Health has included safety practice as an important part of its services to the small plant in Cincinnati. The Bureau joined the National Safety Council and participates in various activities of the Council.

BENEFITS OF A PROGRAM

The following, we believe, represent the important points of our medical program:

1. Prompt and competent handling of injury and sickness cases.
2. Accurate records for present or future claims.
3. Reduction of costly lost time through prevention of infection or other complications in injuries.
4. Better selection and understanding of employees as a result of pre-employment medical examinations.
5. Better employer-employee relations resulting from realization that management is interested in physical and mental welfare.
6. Initiation of organized program for accident prevention.
7. Reduction of lost time as a result of employees being able to come to the first-aid room during working hours on non-occupational cases.

LOUIS L. WEBER, President
Weber Engineered Products, Inc.

The Weber Program

During the first full year of operation, representatives of the Bureau made 53 visits to 26 different industrial plants in Cincinnati for consultations, industrial hygiene surveys, or safety inspections. Each visit was arranged in response to a request for technical assistance, usually from the plant management or from a medical adviser. A substantial number of these visits concerned safety matters, such as the development of adequate eye protection practices.

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42NDprogram
FINAL EDITIONNATIONAL
SAFETY
CONGRESS
AND
EXPOSITION
CHICAGO
OCTOBER
18-22, 1954SAFETY IS
EVERYBODY'S
BUSINESS

Invitation to Safety Learning

Many shall run to and fro and
knowledge shall be increased.

Daniel 12:4

LOOKING for information on:

- ... Nuclear developments?
- ... Handling materials?
- ... How to get people to see things the way you do?
- ... Noise—its effects on ears and compensation claims?
- ... Employee training?
- ... How good a safety man you are?
- ... Why people act the way they do?

You'll find these and scores of other subjects included in the program of the 42nd National Safety Congress. Copies of the preliminary edition have been mailed to members to show them what their program committees have lined up for them and to aid them in planning disposition of their time at the Congress.

And it's always fascinating to browse through the program, studying both the topics and the speakers, many of whom you may know personally or through participation in the safety movement.

* * *

There is no mention of "psychology" (an over-worked word) in the outline of the Early Morning Sessions but the four lectures cover some of its practical applications. The leader in these sessions will be Edward McFaul, of Chicago, billed in the program as a "serious humorist." Titles of the four lectures are: How Confused Can You Get?; So You Think You're Slipping?; What's Your "Wash Room" Rating?; You Better Come Quietly. Summed

up briefly, they deal with things that trouble the human mind, set the stage for accident, and damage personnel relations.

* * *

No session this year has been labeled "Maintaining Interest in Safety," but that traditionally popular theme runs through the programs of many of the general and sectional meetings. Specifically along this line are three ASSE-sponsored sessions on "Effective Communications for Safety," and one on "Are Your Efforts Effective?"

* * *

Accent is on youth in the Farm Safety programs. Eight sessions have been arranged for young farmers, including two meetings with their elders. There are also a Sunday evening buffet, songfest and vesper service, a trip through Underwriters' Laboratories, and a square dance party. Attendance at these three functions is limited to youths attending Farm Safety sessions (age limit not specified).

* * *

One of the advantages of Chicago as a Congress city is the opportunities for plant visits. In the metropolitan area there are plants, large and small, in most of the major industries and many of them are conducting effective accident prevention and occupational hygiene programs. Underwriters' Laboratories has been extremely hospitable to Congress delegates and this year the Food Section has arranged a trip through the Rehabilitation Clinic operated by Liberty Mutual Insurance Company.

And if time permits, a trip through the Museum of Science and Industry is well worth while. It is

easily reached by fast, frequent Illinois Central trains.

* * *

The Annual Meeting, Monday, October 18, will be addressed by Dr. Henry T. Heald, chancellor of New York University and former president of Illinois Institute of Technology, Chicago. Dr. Heald was for many years a member of the Council's Board of Directors and vice-president for Schools and Colleges, 1943-49. The speaker on the distaff side of the Annual Meeting program has not yet been announced.

Crawford H. Greenewalt, president of E. I. du Pont de Nemours & Co., will be the speaker at the Congress Banquet. Both as president of a great corporation and as an individual, Mr. Greenewalt is one of the outstanding figures in American industry. He has made numerous personal contributions to the developments that have revolutionized industry, and the programs that have established safety records in hazardous operations in Du Pont's continent-wide organization have always had inspiration from top management.

The Conrad Hilton Hotel, headquarters for the 42nd National Safety Congress, provides a background for this equestrian statue where these girls from a Michigan Avenue office are relaxing.



Under the general heading, "Women's Activities," are two sessions, with Miss Marion E. Martin, Commissioner of Labor and Industry for the State of Maine and NSC Vice-President for Women's Activities. Monday afternoon will be devoted to two round table discussions: "Safety Is Our Job," and "We Work for Safety, Too."

Tuesday afternoon a reception will be held for women attending the Congress. The Carol Lane Award winners will be introduced and the speakers will be Mrs. George W. Welles, Jr., representing the Home Safety Conference on the Board of Directors, and M. R. Darlington, Jr., managing director, Inter-Industry Highway Safety Committee, speaking respectively on home and highway safety.

Four other sessions on Home Safety, including a luncheon, will have programs of special interest to women.

* * *

To the best of our knowledge, no Congress delegate has yet had to sleep on a park bench or on a pool table, but some who arrived without hotel reservations have had anxious moments. Even the Council's hard-working and resourceful Housing Bureau can't always pull a hotel room out of thin air immediately. The local innkeepers are extremely cooperative but they are sometimes hard pressed to take care of several thousand safety men, the traveling public, and the smaller conventions held almost every week in Chicago. So please don't wait till the last moment and hope for a miracle. Write: Congress Housing Bureau, National Safety Council, 425 North Michigan Ave., Chicago 11.

* * *

You won't want to miss the Exposition in the Exhibit Halls off the lower lobby. Here the manufacturers and distributors of products for accident prevention, fire protection, occupational hygiene, first aid, and other activities designed to improve working conditions will present fascinating displays. Free literature, help on specific problems—and some useful and attractive souvenirs—will be available. The Council's services and publications will also form an elaborate exhibit.

And while you're in Chicago, you are invited to visit Council Headquarters. Bus or taxi will take you to the Tribune Tower and the catwalk on the south side of that building leads right into the second floor lobby of our home. Since most of the staff will be at the various Congress hotels, you'll find a lot of empty desks, but members remaining there will be happy to show you around the place.

* * *

Time spent in studying the preliminary Congress program before you leave for Chicago will help you in planning your schedule when you get there. It will save a lot of running to and fro and you will come back with more knowledge.



That Unpleasant Third E

By LEO R. NUHFER

Disciplinary action makes nobody happy. But without fair impartial enforcement, your safety rules go out the window

YOU HAVE HEARD much about the "Three E's" of safety — Engineering, Education and Enforcement. Many others could be added, such as Enthusiasm and Encouragement.

That third E—*Enforcement*—is a very touchy and controversial subject. It involves these points:

1. What are we going to enforce?
2. Are the rules just?
3. Are we going to be impartial in their administration?
4. Who is going to do the enforcing?
5. How are we going to accomplish the desired result?

Enforcement brings into the

picture the unpleasant function of disciplinary action with penalties. These may be in the form of time off, discharge, transfers, early retirement, etc. In many cases, the severity of the injury takes care of punishment.

Enforcement is swell for the other fellow but poison for us. As human beings we live under the various rules and laws of society. We are interested primarily in safety rules, safe practices, and motor vehicle laws.

Enforcement of motor vehicle laws must be left to the police, where it belongs. Safety rules in most cases are based on experience with accidents. Therefore, progressive companies draw up their own rules.

When I started working in the oil and gas field, there was no such

thing as a safety rule among the companies I worked for. If an employee caused an accident which injured someone or caused property damage, he was fired. After being fired a time or two, he took a more personal interest in accident prevention.

I have no statistics to bear out my thinking but I doubt if there were as many men discharged in those days as there are now. Violations of safety rules are sometimes used as an excuse for discharging men whose attitudes are not right.

Several years ago I was working in Texas and on a Sunday morning the crew was pulling the rods out of an oil well. When the beam hanger was lifted out of the end of the walking beam, one of the roustlers stuck two fingers on each

LEO R. NUHFER is Safety Director, Peoples Natural Gas Company, Pittsburgh, Pa. This article has been condensed slightly from a paper presented at the 24th Annual Convention, Greater New York Safety Council.

hand into holes in the head of the beam hanger to pull it clear of the walking beam so that the beam could be set back out of the way. The polish rod clamp slipped and the beam hanger dropped back into the nose of the beam, cutting off four fingers.

The rouser's first expression was, "My God, I've lost my job."

This man had been involved in three accidents and was warned the next would mean discharge. There is no doubt in my mind the kind of thinking this man had in regards to enforcement by disciplinary action.

Obviously you can see the need for safety rules and that they are thoroughly understood through an extensive educational program.

When safety rules are drawn up, a great deal of time and study must be exercised in their drafting. They must be reasonable and just. I need not remind you how difficult it was to enforce the Volstead Act. Some safety rules must be very rigid; and if the rules are not clearly defined, perhaps there should be some flexibility in disciplinary action.

One Rule for All

The question, upon whom are we going to enforce the safety rules, is more or less obvious. Safety rules are drawn up for specific operations and the men carrying out the operations certainly are the ones who should carry out the safety rules of safe practices for their own protection. Rules should be enforced in such a manner as to give the working man the feeling that they are for supervision and officials who might be on the job as well as for him.

If there is a no-smoking rule, certainly the brass should not appear on the scene with a lighted cigarette or cigar. When breaking concrete with a jack hammer, men are required to wear goggles, and if an official should happen on the job to watch operations, he, too, should have eye protection. They should set an example

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There Ain't No Such Animal!

WHAT? You want to know if there is such a thing as an unavoidable accident? Man, what a crazy question!

But, since you bring up the subject, let's consider a few possibilities.

A hurricane cuts across the land destroying property and human life. Some might call this an unavoidable accident. But, we could construct hurricane-proof structures and we could evacuate all persons in the path of the storm. Thus, can we call a hurricane an unavoidable accident?

Lightning strikes property and persons, causing damage or loss of life. But, we could effectively ground structures and forbid anyone from being in an area subject to such happenings. Thus, is this type of occurrence an unavoidable accident?

Many people are injured every year on jobs because they or others have committed unsafe acts or allowed unsafe conditions to exist. But, we could design machines in which it would be impossible to get hurt, or make everything automatic, or use remote controls, or separate workers so they can't hurt each other, or have a supervisor for each man, or take other elaborate means. Thus, can we call such occurrences unavoidable accidents?

A lot of people are killed or injured on highways and byways each year even though they are observing all the rules and being as careful as it is humanly possible to be. Yet, we could outlaw power vehicles, or make all roads one way, or forbid passing, or limit traffic to specific intervals supervised by police patrol cars every 50 feet. Thus, is this type of occurrence an unavoidable accident?

As I see it, the closest thing to an unavoidable accident is the fact that everyone of us is going to have to die eventually. It's made necessary by the very nature of things (the unavoidable part). But yet, it isn't a chance happening, or an unexpected happening, or something that occurs without a known or assignable cause (the accidental part). So, our inevitable death is not accidental, so not an unavoidable accident.

Therefore, I submit that there is no such thing as an unavoidable accident. Measures can be taken to prevent anything.

I can see you getting red in the face, wanting to break in and argue. Before you speak, however, remember this. Whether these measures are economically practicable or socially desirable is another question. Don't beg the question by talking about economic or social factors. You asked me if there was such a thing as an unavoidable accident, and I say, "there ain't no such animal."

Just because some people may not think it is economically feasible or socially desirable to take certain precautions, doesn't make subsequent occurrences unavoidable.

When you even remotely admit that such a thing as an unavoidable accident is possible, you're worthless as far as accident prevention is concerned.

ROBERT D. GIDEL, Senior Engineer,
Industrial Department, National Safety Council.



Materials-handling safety starts with purchasing. Here, Virginius Brown (right) of Detroit Edison's production department checks slings for safety relative to engineering-purchasing specifications. (Photo courtesy "The Synchronoscope")

You Can Depend on WIRE ROPE

**The rope is made right and there is plenty of data
on selection, care and use for maximum service**

FOR MORE than a century wire rope has been lifting and suspending heavy loads. The first attempt at wire rope making has been credited to a German mining engineer who made a rope of soft iron twisted together to replace the hemp rope then in use.

Early wire ropes had some serious drawbacks when used for slings. The wires were too big and stiff and the metal was too soft. The load would twist and unwind the strands of rope, causing the hand spliced loop to open and drop the load.

The wire rope now on the market represents more than 100 years of research and experience. It is a precision product, made

possible by modern machinery operated by trained and experienced workmen.

The metallurgist has developed high grade steel particularly suited to rope making. Engineers trained in the business have designed ropes of many grades and hundreds of constructions.

For Every Use

The actual fabrication of wire rope—the cold drawing of the wire and the stranding and closing operations—is a continuous sequence of precision operations guided by close inspection for quality and workmanship. Before wire is acceptable for use, it must meet a minimum tensile strength,

it must withstand a certain number of torsions and bends, and meet other strict requirements. Stranding and closing are also done under close supervision and the finished rope must pass additional tests before delivery.

Preformed Rope

Most users are interested in wire ropes for overhead cranes and slings. The most popular crane ropes are 6x37, 8x19 and 6x19 construction and they are usually furnished in the Improved Plow Steel Grade. These ropes may have a fiber core or a steel core, depending on operating conditions, and may be preformed or non-preformed.

For operating or running ropes, preformed wire rope has many advantages. The preforming operation forms the wires and strands to the exact helical shape they assume in the finished rope, so that they lie naturally in place. This removes internal stresses and produces a more flexible rope which withstands bending stresses and fatigue better than ordinary wire rope.

Where flexibility is of prime importance, a 6x37 or 8x19 rope is desirable. If the drum is grooved, 8x19 is usually preferred. If the rope is subject to crushing or overwinding on the drum, or if heat is a factor, 6x37 or 6x19 rope with a steel core is recommended, the 6x19 being used where maximum flexibility is not required.

No tool, no matter how well made, will give the best service unless properly handled and used. There are a number of precautions that protect the safety features built into the rope, and help promote safe, efficient and economical operation. When install-

ing wire rope, care should be exercised that the wire rope is not kinked or twisted. A kink, no matter how slight, affects the "balance" of the rope and maximum service cannot be expected.

Wire rope of highest quality is usually lubricated externally and internally when it is made. To secure best service wire rope should be lubricated from time to time while in use, to protect the rope against corrosion.

Wire rope should be inspected at regular intervals and when the rope is worn to the point where its condition is doubtful, it should be replaced at once.

The crane itself should be regularly inspected and defective or worn parts replaced. Sheaves which are too small in diameter shorten rope life. Sheaves with too small a score pinch the rope and damage it. Worn or corrugated sheaves cause a rope to

wear rapidly—especially a new rope in an old sheave.

Inspect crane blocks to make sure the sheaves are turning properly—they should be designed so the rope has no chance to scrub against the sides of the block.

Lifts should always be made with the crane ropes hanging vertical. If the crane hook is pulled out to one side of the crane runway, the ropes are likely to be out of position—giving them the chance to wear against stationary parts—in addition to putting unusual strains on the crane itself.

Types of Slings

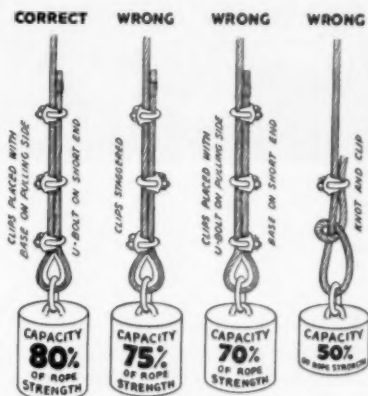
These are a few of the preventive measures a wire rope user can take to secure safe and efficient service.

The majority of loads handled demand the use of a flexible connecting member or sling between

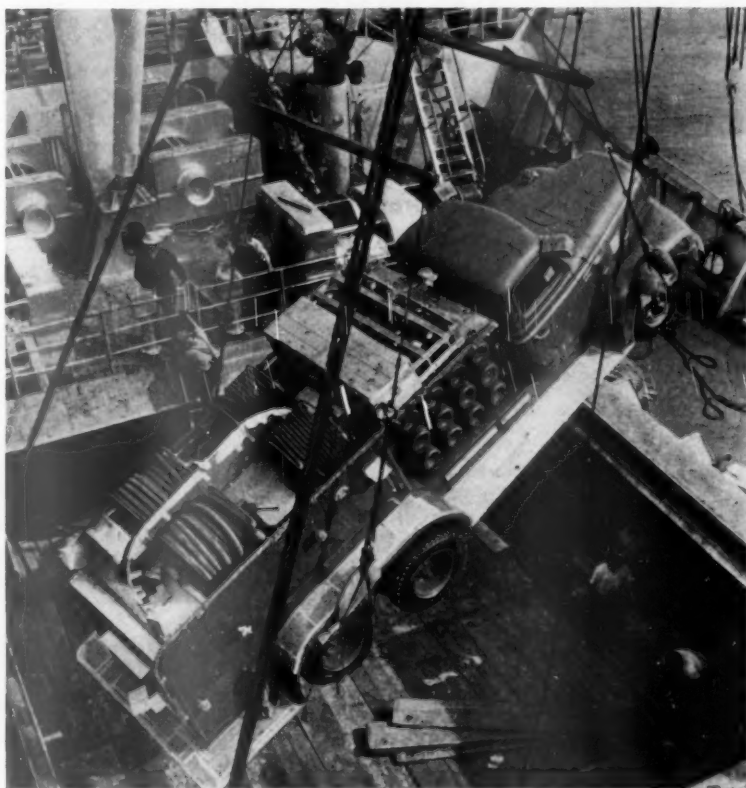
the crane hook and the load, and as such, slings are subject to more abuse and wear than any other part of lifting equipment.

As previously stated, wire rope is made in several grades and constructions, but not all of these constructions are suitable for sling use.

Wire core rope is used where service is severe or where the sling is subject to heat or crushing, and where flexibility is not



To get full strength from wire rope, place clips with base on pulling side.



All in the day's work for wire rope slings. This heavy airport fire-fighting crash truck with carbon dioxide and foam equipment is being loaded aboard ship bound for Rio de Janeiro. (Walter Kidde & Co. photo)

of prime importance. Wire core rope is slightly stronger than fiber core rope, but it is also stiffer and harder to handle.

While the ordinary single-part wire rope sling has many advantages, one disadvantage is lack of flexibility. Another is kinking which is bound to occur if the sling is used around corners without protection. This kinking makes the sling hard to handle, and perhaps more single-part slings have been taken out of service for this reason than any other.

These disadvantages led to the development of braided slings with round or flat bodies. The round braided sling usually has eight parts of rope in the body, and the flat braided sling usually has six parts of rope. The use of a number of small ropes in the body produces a sling of great flexibility which hugs the contour of the load and resists kinking.

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General Electric's new industrial clinic at Schenectady. The building houses the plant safety office, workmen's compensation unit, industrial hygiene laboratory, dispensaries, and facilities for various therapies.

THE dedication of General Electric's multi-million dollar Industrial Clinic, in Schenectady, N. Y., on July 9, was a far cry from the primitive medical facilities established by GE, nearly 60 years ago.

Industrial medicine at General Electric had its inception in a medicine chest in the office of the assistant manager of the Schenectady Works, in 1894.

There is no record of who first suggested the chest, or when it was requested, but on December 4, 1894, G. E. Emmons circulated a written notice that "a medicine chest has been placed in the office of the Asst. Genl. Mgr. of the Works, the contents of which are for the free use of employees in case of accident."

At that time, General Electric was officially two years old and Schenectady housed its only plant.

In 1909, a first aid room was established in Building 45. The setup included a waiting room and a doctor's office—although there was no plant doctor. The station was attended by a hospital corpsman, George Roland, who had been appointed by Emmons, then Works Manager.

The first plant physician, Dr.

Sixty Years of Medical Service

New clinic and laboratory mark progress in a program which began with a medicine chest



D. Glen Smith, was appointed in 1921. He later brought in as his assistant Dr. B. L. Vosburgh, who became head physician in 1928.

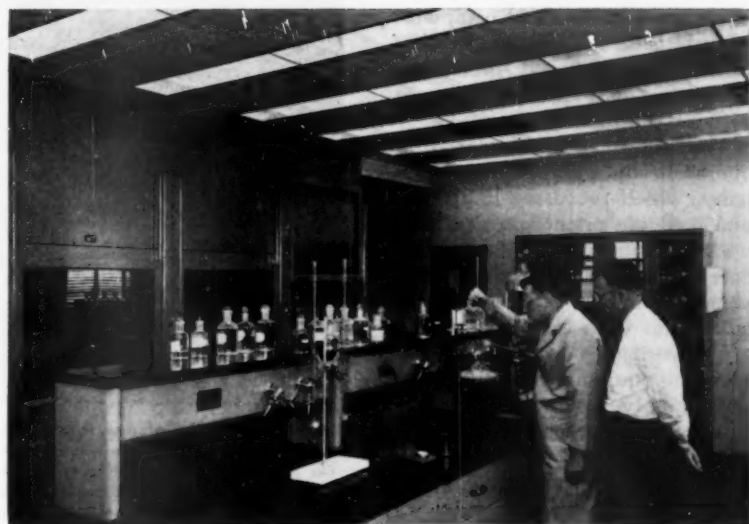
Dr. Vosburgh was appointed manager of Health Services, a company-wide position, in 1952.

Today the Industrial Clinic has five full-time doctors, two part-time doctors, and 31 nurses and corpsmen. Dr. W. F. MacDonald, the present plant physician, took over in January, 1953. Approximately 85 persons are employed in the new building.

The Industrial Clinic building has a total of 33,600 square feet of floor space—first floor 18,200 sq. ft., second floor 12,400, and the "penthouse," 3,000. On the first floor are: Plant safety office, workmen's compensation unit, clinic reception desk, men's dispensary, men's physiotherapy room, women's ward, four doctors' offices, nurses' stations, fracture room, emergency room, X-ray facilities, central storage for drugs and supplies, and the garage for two modern ambulances.

The second floor houses: Industrial hygiene laboratory, cardiograph rooms, audiograph room, pre-employment examination section, clinical lab, conference room,

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TOP

Latest X-ray equipment has been installed at the clinic. Here a technician views an X-ray plate fresh from the developer.

MIDDLE

A wide variety of minor injuries and ills are handled in the two dispensaries. There are separate clinics for men and women.

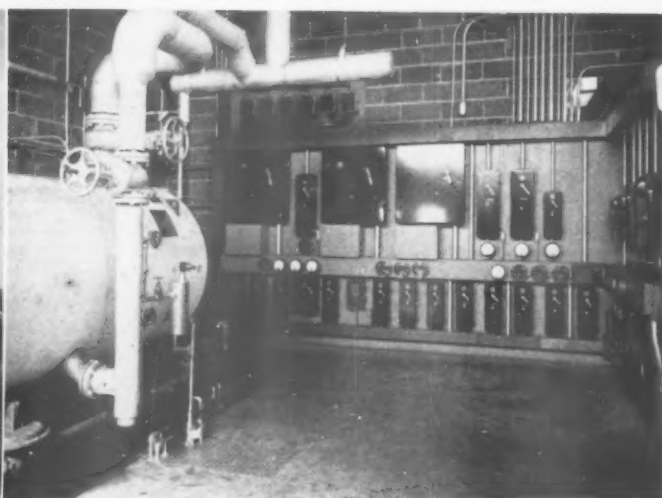
BOTTOM

Lawrence F. Dieringer, industrial hygienist, conducts an experiment in the industrial hygiene lab. Looking on is John J. Ferry, coordinator of the lab and a chemical engineer. The lab has become the center of GE's research for better working conditions relating to ventilation, temperature and occupational ailments.

Sight screening and hearing tests are given new employees and periodic check-ups are given all employees at the GE clinic. Here an employee is "wired" for a decibel count.



New coal-processing plant of Penn-Rillton Company. High section is manufacturing area, viewed from southwest. Raw materials are unloaded into hopper on north side. One-story section houses offices, washrooms, and boiler and electric controls. Outgoing shipments leave from platform on south side.



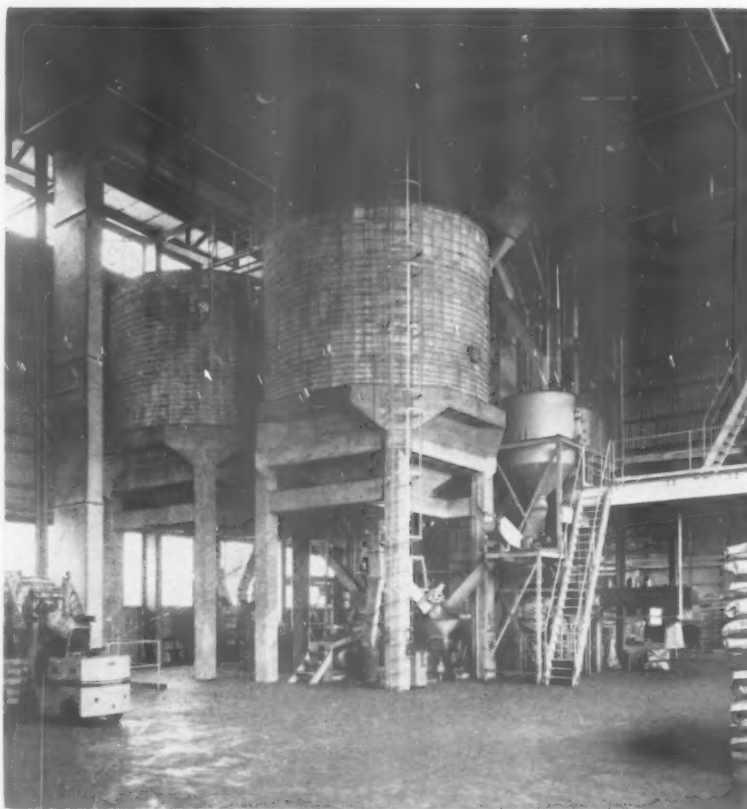
Centralized and interlocked arrangement of electric motor controls and metering equipment. Costs were cut by locating starters in boiler room, avoiding need for explosion-proof equipment. All electrical equipment in manufacturing and warehouse areas is explosion-proof.

Automation and Dust Control

A new coal-processing plant shows progress toward better operating conditions in dust-generating industries

AN INKLING of dust-free conditions to come in the foundry industry and the rapidly expanding field of coal chemistry are to be found in a little box-like factory building down on the Monongahela River at West Elizabeth, Pa. It houses one of the most concentrated and completely automatic installations of materials handling and processing equipment yet packed into an area of comparable size.

The plant, recently placed in operation by Penn-Rillton Company, which processes lump coal and coal tar pitch into fine pulverized foundry mold facing and core binder materials, sets new standards in dust control and dust collection. With an intricate maze of pulverizing, conveying and blending equipment which has an initial daily processing capacity of 140 tons of bagged and finished products, there is plenty of room for expansion in the 7,400 sq. ft. manufacturing area.



Manufacturing area of new Penn-Rillton plant showing compact arrangement to permit expansion of process system within present structure. Pitch storage silo is at left; sea coal silo at right. Raw materials pass up bucket elevator at left, through screw conveyors to respective silos. Note dust-collecting hood and ducts above elevators. Lights, bin-level elevators, pushbutton stations at bases of silos are all explosion-proof.

Foolproof interlocking automatic controls, explosion-proof motors and electrical equipment, and an all-inclusive dust control and collection system have been provided. The Austin Company designed the plant and processing installation in the interests of efficiency, economy and safety, as well as working conditions.

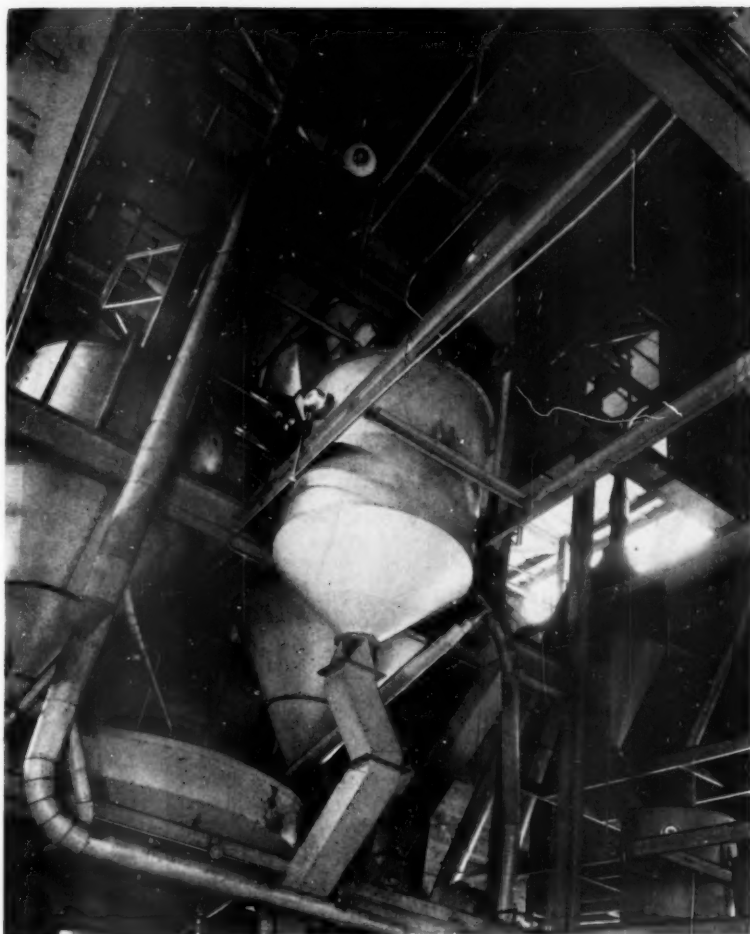
Because of the character of this equipment and the built-in flexibility of the materials handling system, maintenance and production personnel are limited almost entirely to the number required to man the bagging machines and to handle the finished product to and from storage or the shipping platform.

Lump coal and dry coal tar pitch are the principal raw materials required by the plant. These are received by rail from nearby mines and unloaded directly into the car hopper on the north side of the building. They travel on a belt conveyor to a single roll crusher, then are carried up to the top of the building by a bucket elevator.

Passing through screw conveyors, the coal and pitch are delivered to their respective storage silos, of 100-ton capacity. Thence they pass through combinations of pulverizers, screens, separators and other equipment, and are reduced to minus 200 mesh or finer before they arrive at bagging machines on the main floor. Bags of finished products then move to the warehouse area, on the east side of the plant, to await shipment.

The combinations of equipment through which the materials pass are regulated according to the composition and grain sizes desired in the finished products. The coal and pitch are sometimes combined, in a number of proportions. In addition, various other substances, including goulac, clay and dextrine, are mixed with the pitch to produce core binders with special properties.

Because of the nature of the raw materials and products processed in the plant, a highly efficient dust collecting system was



Several aspects of dust-collecting system are shown here. Large duct at left brings dust from several sources and delivers it to bagging machines at lower right (not shown). Dust is sold as separate product, as well as blended with other raw materials. Another large duct leads down from dust collector hopper at upper right to two smaller ducts. One at left takes dust to storage bin for future use; one at right delivers it to bagging machine.

necessary. Yet the mass of equipment installed occupies remarkably little floor space and the plant as now constructed provides room for considerable expansion of processing facilities in the future. In addition, the structure was so located that it may be extended in two directions if and when desired.

The manufacturing area at present measures 100 by 74 feet, with a clear area of 40 feet from the floor to the base of the trusses. Only 2,400 sq. ft. of floor space is needed for the two 100-ton storage silos, with all their related equipment and machinery. Room has been left for six more silos of the

same size. Since the structure can be extended 135 feet to the north and 170 feet to the east, the present potential capacity of eight silos can be multiplied several times.

The entire conveying and processing installation is completely enclosed and dust-tight. A negative pressure is maintained in the system by the dust collecting equipment, with one collector for pitch dust and one for sea coal dust. The collectors may be operated in combination or independently.

Dust collection in the plant has both physical and economic pur-

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Pinned!

(Fiction)

By BILL ANDREWS

Developing pride in performance brought a big improvement in teen-age driving. Will it do the same for power-truck operators?

September 7, 1954

We got lucky.

Looking across the floor in the direction of the scream, I could see that the flat bed truck pulled by a power unit had wedged against a column, and that someone was caught between them.

He only screamed twice, before he crumpled up and was still. He was lucky, too, I guess.

Anyway, as I sprinted the 50 yards to the scene, I was wondering whether it was only an ampu-

tation, or perhaps our first fatality in three years.

As I say, we were lucky; it was only a nasty fracture of the leg. We got the man loose and into the ambulance before he came to, and, while I waited for the X-ray reports, I turned my attention to the power truck operator.

He was nearly as pale as the man he'd hit. He'd been ten minutes in the john losing his breakfast, and he still had the shakes. It was no situation in which to give a bawling out.

I asked him very quietly how it happened.

"Gee, boss," he said, "I just dunno. I've swung into that bay a thousan' times. I just figured I had the post cleared, an' I didn't, that's all. I'd seen him, walking toward me, but I sure figured he'd stop and let me past. 'Stead of that, he musta walked past the post, an' the truck I was pullin' pinned him. I just don' see how it coulda happened. I don' think I can ever drive one o' those things again after that. I'm just wheelin' along pretty easy, doin' what I always done, an' then that happens. I guess I ain' never gonna get that scream outa my ears. It was awful. Like a guy being torn t'bits. I don' ever wanna drive that thing again!"

There wasn't anything more to learn from him, so I called his foreman and got him the rest of the day off. Then I went back to the floor and checked the layout. Half an hour after the accident, the floor was still disorganized. That screaming had shaken the staff plenty, so there were plenty of people to show me how it happened.

Matter of fact, I didn't need much help. The tracks were clearly marked on the newly swept floor, and it was perfectly obvious that what the operator said was true. He'd made his usual swing, misjudged his distance, and hit the post with his trailing flat bed without any warning. He'd never hit the brakes, that was sure.

As Harry Dexter pointed out, that sort of thing happened often. There are a dozen columns around the plant that have been scarred by trucks hitting them. We never thought much about it, because in these incidents no man was hurt. In the ordinary bump like that there isn't even appreciable property damage to get the foreman excited.

I checked the operator's record with personnel and his foreman. Not much to go on there. Eighteen months' experience, 24 years

old, married six months. His reputation is that of a steady worker, not reckless, not too bright, somewhere around average in skill and in his record of handling stuff without damage. Good eyesight, no physical handicaps.

His gang pusher told me, "Nels is really a conscientious guy, and really kind of ambitious. He told me once he knew there was no future in this work, and that he was studying something by correspondence—sheet metal, I think. He wants to get ahead, all right, and I've noticed he's studying most lunch hours."

It was thin pickings, as accident investigations go. Oh, we knew the cause, all right—inattention, leading to a misjudgment of distance, combined with a mental lapse on the part of the man hurt which brought him into the wrong place at the wrong time.

We could hold some more meetings, and shout, "Be careful, look where you're going." They might do some good, for a very short time. But with the turnover in operators and the countless opportunities for such accidents, meetings and preaching don't sound like a promising solution to me.

I don't like that kind of accident. It's too darned likely to be fatal.

* * *

Later

My secretary was showing Harry and me some pictures of her western trip in August. She had several pretty good ones of a small town rodeo in Montana—bucking horses, a guy tying a calf, and so on.

"Rodeo," said Harry, absently.

He seemed to catch an idea. Then he said, "Road-e-o!"

I caught up with him about then. "That Jaycee deal of yours," I said.

He nodded, and I thought back to that blazing hot June day when he drafted me to help out in staging a Teen-Age Road-e-o out on the fairgrounds—a test in skill in driving passenger cars. It was

modeled, of course, on those driving Road-e-os the truck industry has sponsored for many years.

We had the kids running a right tough driving course—laying the wheels down a narrow line between rows of rubber balls—weaving a tight course around a line of oil drums—making a fast stop on a line—parking in a tight space. Our champ went on to the state finals, and the state champ went to compete in Washington in the National Finals last month.

The police chief told me last week that he hadn't had a teenage driver cause an accident since the contest. And I know the truckers are completely sold on their truck Road-e-o as safety promotion.

We've got a couple of truck outfits represented in our local Safety Council, so I called them up and got some dope from their safety men. Then I headed for our power truck fleet supervisor.

He's agreed to give the idea a whirl, and he's going to get some help from a power truck manufacturer in setting up a driving test. It will take a lot of working out, and it doesn't have the steam behind it that a national contest with big prizes does.

But if we can design the proper course, and then set up a contest that will put a premium on sound operation and accurate handling of equipment, I think we could start building a real pride of craftsmanship among the operators.

I know our president, Larson, will go for it. He's an old shop hand who came up through skill and personal force. Anything that will sell respect for the work and pride in skill is right down his alley.

This much I feel pretty sure of. The operator who is in training for a tough driving contest isn't likely to be the one who slops off on making turns in the plant.

Maybe this is the answer. I know that it's worth a good hard try anyway.



Anything's worth a try that'll cure the kind of cold sweat I went through for a couple of minutes this morning!



Dry straw and scrap wood were used to simulate grass and weed fires to test fire resistant coating on creosoted piling and other pressure-treated wood.



Close-up of piling which took brunt of test fires. Surface of wood was undamaged after protecting coat was scraped off. (Courtesy Modern Railroads)

Fire-Retardant Coatings

Tests conducted by railroads show value of treated timber in resisting sparks and flames that cause heavy losses

By W. E. BARNARD

EACH year fires touched off by accumulated tumbleweed in Western states and grass and brush fires elsewhere destroy an estimated one million dollars worth of trestles, bridges and culverts. These fires are generally set off by hot shoe slivers, fusees, sparks from hot boxes,

and hot diesel exhaust carbon globules.

The losses resulting from traffic tie-ups are incalculable, but it is many times a million dollars. The financial loss from the destruction of a main-line trestle on a major railroad is estimated at \$500 a minute. In 1953, for the first time in history the annual fire losses in America exceeded one billion dollars.

The report of the annual meeting of Fire Protection and Insurance Section of the Association of American Railroads held in St. Louis, October 1953, pages 45-48, covers the progress made in connection with the use of fire retardant paints and coatings. Tests are being conducted in the Central Research Laboratory of the AAR in Chicago, on fire resistant coatings for bridges and trestles.

W. E. BARNARD is President, Barnard Chemical Company, Los Angeles.

Extensive field tests are being conducted in the West under the jurisdiction of Mr. George W. Rear, Jr., general fire prevention engineer for the Southern Pacific Company.

These tests are on bridges in northern Oregon where the average rainfall is 58 inches a year; in Carlin, Nev., where winter temperatures drop to 30° F below; in Colton, Calif., where bridge structures are subjected to severe sand storms; and in Alameda County, Calif., where salt laden fogs are prevalent.

These actual field tests are being run on a proven fire resistant coating (one coat at 60 square feet a gallon) to determine the adhesion properties to creosoted timbers and the weathering properties under all types of extreme conditions.

In selecting a fire protective coating great care should be exercised. A coating is one which will not be destroyed by fire and which should meet Federal Specifications SS-A-118a "slow-burning" classification. It will hold a fire at its point of origin without flame spread for a minimum of twenty minutes. The average fire will die out in five to ten minutes if starved from contribution.

A fire-resistant coating will prevent the early liberation of distilled gases and thus prevent the propagation of a flame. Unless starved from lack of fuel or oxygen, a fire will continue to increase in velocity until out of control. Complete mastery over fire is to starve it to death. Fire-resistant coatings are formulated for the protection of combustible wood surfaces, and in the event of fire they present a "fire safe" period long enough to bring fire extinguishing systems and equipment into action before serious damage occurs to the structure or surfaces.

A fire resistant coating now under test at the AAB is being used by large Western railroads on trestles and bridges; on converted steam round houses; on the under decking of new flat

Million Miles of Flying



NED H. DEARBORN covers a lot of ground in carrying out his duties as president of the National Safety Council. He covers a lot of it from the air—flying to all parts of the country in his continuous travels.

He flies so much, in fact, that he has been made a member of the Million-Miler Club of United Air Lines, and was presented recently with a plaque proclaiming him as a million-miler.

In accepting the plaque and membership from Morgan R. Nickell, United Air Lines district sales manager (left, in the photo), Mr. Dearborn reported to Mr. Nickell and to William Glennon, United salesman (right), that actually he has flown approximately 2,000,000 miles in the last 25 years.

cars which decking has been pressure treated with a pentachlorophenol which is highly flammable. The coating is applied over the trucks to prevent fires from brake shoe slivers and hot boxes; in refrigeration Preco fan belt areas (14,800 cars) to eliminate repetitious fires within these areas; and switch towers (interior and exterior).

A fire-resistant coating should adhere to pressure-treated creosote and penta treated timbers for a minimum of five years without recoating. The paint film should remain intact when fire causes creosote or penta oils to boil under the paint film (distillation temperatures of creosote are 350-365° F).

A coating is formulated for interior application only and gives the greatest protection to load bearing steel which will collapse at a temperature of approximately 1100° F. A fire retardant coating forms an insulating sponge-like intumescent mat in the presence of heat from 330 to 450° F and will retard heat input up to 70 per cent for a 25-30 minute-period. This insulating mat or puff in many cases is 50 times its original paint film thickness.

Unprotected load bearing steel under direct fire exposure will reach the failure point in five to ten minutes, as the high thermal conductivity of steel is favorable to rapid heat absorption. A fire

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FOR DISTINGUISHED SERVICE



THREE types of awards are given in recognition of outstanding performance in industrial accident prevention:

1. **THE AWARD OF HONOR** is available to industrial units whose records, even though not perfect, nevertheless meet rigorous standards of excellence. These standards take into account the previous experience of the unit as well as the experience of the industry in which it operates. A unit must qualify on both frequency rate and severity rate. The Award of Honor also is available to units which complete 3,000,000 manhours without a disabling injury.
2. **THE AWARD OF MERIT** has similar, but less exacting requirements. The minimum number of injury-free manhours needed to qualify is 1,000,000.
3. **THE CERTIFICATE OF COMMENDATION** is available only for injury-free records covering a period of one or more full calendar years and totalling 200,000 to 1,000,000 manhours.

Details of eligibility requirements may be obtained by writing to the Statistical Division, National Safety Council.

AWARDS OF HONOR

American Telephone & Telegraph Co., New York. Entire company.
Baltimore & Ohio Railroad Co., Chicago Terminal Region.
Borg-Warner, Morse Chain Co., Ithaca, N. Y. Entire company.
C. Brewer & Co., Hutchinson Sugar Plantation Co., Hilo, Hawaii.
Celanese Corp. of America, Celco Plant, Charlotte, N. C.
Cincinnati Gas & Electric Co. and **Union Standard Heat & Power Co.** Entire company.
Consolidated Edison Co. of New York. Entire company.
Consolidated Gas, Electric Light & Power Co., Baltimore. Entire company.
The Detroit Edison Co. Entire company.
Duluth, Missabe & Iron Range Railroad, Duluth, Minn. Entire company.
E. I. du Pont de Nemours & Co. Five awards: Chambers Construction; Chattanooga Plant; Louisville Works; Parlin Photo Products Plant; Sabine River Works.
Duquesne Light Co., Pittsburgh. Entire company.
Electro Metallurgical Co., Marietta, Ohio.
Ford Motor Co. Three Awards:

Glass and Paper Plant; Kansas City Aircraft Plant; Metuchen Plant.
Great Northern Railway, St. Paul, Minn. Entire company.
Hope Natural Gas Co., Clarksburg, W. Va. Entire company.
Lockheed Aircraft Corp., Georgia Div., Marietta, Ga.
Lone Star Gas Co., Dallas. Entire company.
The New Jersey Zinc Co., Palmerston, Pa.
New Orleans Public Service, Inc., Electric and Gas Utilities Unit.
New York Central System, Chicago River and Indiana Unit.
The People's Gas, Light & Coke Co., Chicago. Entire company.
R. C. A. Service Co., Inc., Gloucester, N. J.
Rohm & Haas Co. Two awards: Bristol (Pa.) Plant, Lennig Plant.
Southern Natural Gas Co., Birmingham, Ala. Entire company.
Standard Oil Co. (Indiana), Whiting Refinery.
Texas Eastern Transmission Corp., Shreveport, La. Entire company.
Texas Power & Light Co., Dallas. Entire company.
Union Pacific Railroad, Ogden Union Railway and Depot Co.
United States Steel Corp., Pittsburgh (Calif.) Works.

Washington Gas & Light Co., and Subsidiaries, Washington, D. C. Entire company.
Western Electric Co., Inc., Kearney (N. J.) Works.

AWARDS OF MERIT

AiResearch Mfg. Co., Div. Garrett Corp., Los Angeles.
Alton & Southern Railroad, East St. Louis, Ill. Entire company.
American Laundry Machinery Co., Factory No. 2, Cincinnati.
Appalachian Electric Power Co., Inc., Kentucky & West Virginia Power Co., Ashland, Ky.
Atlantic Coast Line Railroad Co., Wilmington, N. C. Entire company.

—To page 126

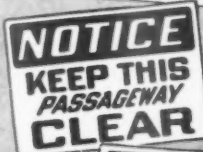


"You could even play the piano in those things," says Don McNeill, emcee of the Breakfast Club, to R. A. Harschnek, director of safety for Swift & Company. McNeill investigates aluminum hat and steel mesh gloves worn by packing house workers. As vice-chairman of the National Safety Council's Motion Picture, Television and Radio Committee, McNeill presented Council awards won by Swift plants. The Award of Honor, the Council's highest award, went to Fort Worth plant. Plants winning the Award of Merit were: Sioux City, Baltimore, Chicago, Omaha and Saint Paul. Perry, Ia., received the President's Letter for a no-accident year.

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ACCIDENT PREVENTION • steel SIGNS IN STANDARD COLORS AND DESIGNS

THE SAFETY VALVE



Nothing human is alien to me.
—TERENCE

Crowds

THE FESTIVAL OF FAITH, recently held in Chicago's Soldier Field, found our family among the 125,000 persons in the stadium, or trying to get in. That topped by 35,000 the crowd for the All-Star football game two evenings before.

On the parking lot were 500 buses and several thousand private cars—probably the biggest fleet yet parked there. The effect on traffic was noticeable as far north as Foster Avenue.

As an example of unity in basic beliefs and goals among people of differing creeds, the gathering was impressive. The music was magnificent, but from our corner near the north side goal posts it was difficult to follow the pageant, even with four-power binoculars. Nothing short of a Roman chariot race could be appreciated from the far corners of the stands.

But this is chiefly about crowds. As we were inching out of the field, our New Orleans guests remarked that it was like Canal Street during the Mardi Gras—without the rude jostling. Everybody was considerate, as might be expected from a church crowd. Didn't notice anybody fainting but saw two women stumble.

I was reminded of the Eucharistic Congress 28 years ago when Chicago handled some real crowds. Climax of the week was a pilgrimage to suburban Mundelein by more than 400,000 men, women and children, traveling by electric and steam trains, buses and private cars. Many Chicago agencies cooperated in one of the most thorough jobs of traffic control ever undertaken.

Hospital facilities set up by the transit companies handled 1200 cases that day—none involving injury due to public transportation. Company authorities attributed the large number of fainting cases to inadequate sanitary facilities, with consequent strain. "Give 'em enough toilets and you can handle any crowd," said one official.

Just to show how times have changed since 1926 we didn't mention that important detail in the story.

That Sabbath was no day of rest for the bus drivers. Sitting behind our driver on the way down I could feel the tension of the heavy traffic, almost as though my own fenders were menaced.

Easier on the Eyes

JUST IN CASE you hadn't noticed it, this issue is printed in a different type face. It was selected after looking through our printer's specimen book for faces available with Mr. Mergenthaler's marvelous machine. This one, Textype 10 point on 11 point slug, looked easy to read. Reading proof on one issue proved it.

With Textype we can't squeeze as many words into one page as with the type we'd been using for years. To make up for this, we had to steal a little space from the margins. The change, we believe, will be approved by the National Society for the Prevention of Blindness.

In This Issue . . .

THERE MAY NOT BE gold in those eroded red hills down in the southeast corner of Tennessee but there's immense wealth in the sulfide ore. Here Tennessee Copper Company is conserving natural resources by getting every nickel's worth of by-products from the ore, working to restore beauty to a landscape ravaged by wasteful methods of the past, and safeguarding the people who live and work in the Copper Basin. It was a privilege to spend two days there, meeting representatives of management, supervisors, union officials and the staff of the safety department and to present the Council's Fourth Award of Honor won by the company. (Page 18)

* * *

In Cincinnati they're really doing something about safety and health in the smaller plants. Starting from the medical angle, they found that health was tied up very closely with accident prevention so a realistic, comprehensive program was developed. (Page 22)

* * *

"A policeman's lot is not a 'appy one," according to Gilbert and Sullivan, and that goes for safety, too. Nobody likes the job of enforcing rules but without that "3rd E" they'll never prevent accidents. (Page 28)

* * *

Operating an in-plant power truck can never be as thrilling as driving a vehicle on the open road but it demands a lot of skill. So, remembering successful results of a project with teen-age drivers, our Safety Engineer plans a field day where drivers can show their skill and develop pride in the job. (Page 36)

Carman Fish

is Industrial Noise Risk Your Problem?

**this Inexpensive SOUND-SURVEY METER
Can Help You!**

COMPACT • INCONSPICUOUS • LOW COST: \$135 • PORTABLE • SELF-CONTAINED
Reads Directly in Sound Level • Easily Operated by Anyone

The G-R Type 1555-A Sound-Survey Meter is proving invaluable throughout industry for preliminary surveys of sound levels to determine the amount of noise and to help indicate necessary steps for its control.

This inexpensive meter is the culmination of over 20 years of experience by G-R in pioneering in the design and manufacture of precision sound-level measuring equipment.

In addition to making noise measurements toward protecting persons working near noisy machinery, this meter is being used widely to improve working conditions of office personnel; increase comfort in hospitals, residential sections, schools and recreational areas; improve the performance of industrial equipment and household appliances.

This meter is very simple to operate. It easily fits the palm

of one hand. The noise-level control can be operated by the thumb alone. Noise level is read by adding the "LEVEL DB" knob setting and the reading of the meter. It's as simple as that! Readings are in db over the range of 40 to 136 . . . covering the levels normally found in most industrial noise risk problems. Calibration is accurate, reliable and stable. The instrument is operated from self-contained batteries, readily obtainable.

It is designed so that the instrument is not pointed at the noise source, but at right angles to the sound being measured, increasing its inherent unobtrusiveness.

The Type 1555-A Sound-Survey Meter can well be the answer to your evaluation problem. Complete information can be obtained promptly by filling in the coupon below.

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Please send a copy of your SOUND-SURVEY METER measuring G-R's complete line of noise measuring equipment.

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Safe and Sanitary

SAFETY equipment, from gloves to respirators, is thoroughly cleaned, repaired and made ready for reuse at Carbide and Chemical Company, Paducah, Ky.

In C-400, known as the Cleaning Building, helping Carbiders remain safe on the job is the specialty of the Safety Equipment Cleaning Area. Here, hard hats, rubber and rubberized cloth gloves, respirators, gas masks, boots, welders' helmets, and many other safeguards are repaired and cleaned.

Anything in the form of safety equipment that has to be cleaned and/or repaired is taken care of by this shop, which is essentially a day shift operation. Any item beyond repair is junked for salvage.

The reconditioning shop works on a mass production basis, with respirators, gloves and gas masks heading the volume list. The main purpose of the Cleaning Area is to keep safety equipment free from chemicals and bacteria, perform any necessary repairs, then redistribute the equipment.

All face equipment is sterilized by the shop; a welcome and important service to Carbide workers.

When an item of safety equipment leaves Carbide's Cleaning Area—it is safe to use.

Testing machine checks for leakage in replaced lens of an Army-assault-type gas mask. Tester creates a vacuum around lens and indicates whether it is safe for use. All lenses in this type mask are tested before they leave the shop.



Dust respirators are reassembled and packaged at Carbide's Safety Equipment Cleaning Shop. Old filters are removed and discarded. Respirators are cleaned and new filters inserted. Each reconditioned respirator is packaged in a paper bag, then returned to area where needed.



Rubber gloves are washed and sterilized in mixture of hot soapy water and chemicals. After washing, gloves are rinsed in clear water and dried in drying box. Before gloves leave the shop, they are sprinkled inside with talcum to make them easier to get on and off.



Broken lens in an Army-assault-type gas mask is replaced. After new lens is inserted, it is tested for leakage before it can be declared safe for use. Removed broken lens can be seen on table.



"Here's a goggle I like to wear!"

Who's speaking? Any worker who's ever worn USSSCO's amazing lightweight SAF-I-FLEX cover goggle. They like it for four reasons:

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| <p>(1) TRUE COMFORT —
actually weighs less than 2 ounces . . .
soft, flexible, frame has wide-rolled edge.</p> <p>(2) BETTER FIT —
fits any face contour . . . fits over personal
glasses, too.</p> | <p>(3) CLEARER VISION —
crystal-clear vinyl frame . . . grid vents
eliminate fogging.</p> <p>(4) SURE PROTECTION —
rugged, optically correct OPTILITE® lens . . .
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NOW! A Complete Line of Head and Eye Protection for Every Job!

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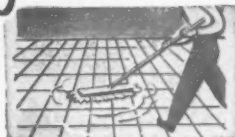
BRANCHES IN PRINCIPAL INDUSTRIAL CITIES

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the new, safe way
to daily dust up!

**Leaves Floors
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**Will Not Soften Wax Film
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There's nothing on the market to compare with Hil-Sweep for daily maintenance. Clear, transparent, clean-smelling, Hil-Sweep picks up dust, leaves a lustre-new look with no harmful effect on your surface treatment. Surface treatment lasts longer. You save labor-time in sweeping and daily maintenance of your floors. Mail coupon below for a demonstration. Advice and help are free.

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Why HIL-SWEEP is
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- Hil-Sweep is non-injurious to asphalt tile... the result of years of research to develop a maintainer that would be safe for daily care of resilient and all other types of floors.
- Rags saturated with Hil-Sweep will not burn, eliminates fire hazard in use or spontaneous combustion of mops in storage. No flash point.
- Contains no emulsified oils, leaves no oily residue to darken, discolor, soften or bleed colors.
- Spray it or sprinkle it on brush, mop or dust cloth.
- Won't load mop. After using simply shake out and brush or cloth is ready to use again. Saves on laundry and dry cleaning bills.
- Imparts a pleasant aroma where used.

Dust Control

—From page 35

poses. Its primary purpose is to eliminate the hazard of spontaneous combustion of dust-saturated air. At the same time, collecting dust improves working conditions in the plant. On the economic side, the dust is a valuable product in itself. It may be bagged and sold separately, or, more generally, blended with the other raw materials to obtain end products with various characteristics.

All electrical equipment in the manufacturing and warehouse areas is explosion proof (Class II, Group F). All controls are interlocked to prevent an operator from starting or stopping the process equipment in the wrong sequence. Automatic magnetic separators are used to remove tramp iron from coal and/or pitch, thus protecting the process equipment from damage.

The selection of proper drives permitted the use of identical 75-hp, 1800-rpm, explosion proof motors to power the pitch pulverizer, operating at 1800-rpm, and two coal pulverizers, operating respectively at 1200 and 3600-rpm. Thus only one spare motor must be kept on hand, instead of the three normally required.

The manufacturing area is topped by six 70-foot H-section trusses, spaced 20 feet apart, running north and south. The space between the bare trusses is utilized for some of the processing equipment above the silos. The slightly peaked roof, sloped $\frac{3}{8}$ -inch to one foot, has a continuous ridge ventilator running east and west. Corrugated asbestos siding is used on all sides of the manufacturing area and on three sides of the warehouse area to the east.

A one-story wing on the west, faced north and west with brick, houses office space, toilet and locker facilities, and the boiler and control equipment room. Rail lines bracket the plant, with incoming raw materials being brought to a car shed and hopper on the north side and outgoing bags of foundry products leaving from the loading platform running along the south side.

SAFETY'S OWN

Supermarket

...the EXPOSITION



The Exposition is your annual opportunity to pack up your safety and occupational health problems in a shopping cart, and go window shopping for the latest equipment and product help on the market.

All the leading manufacturers are again represented. Competent consultants are on hand at each of the 238 booths to help you find practical answers to your specific problems.

REMEMBER the Exposition is located on three floors—

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SAFETY
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North and South
Exhibition Halls
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Second Floor

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**CONRAD
HILTON
HOTEL**

GREEN CROSS NEWS



Activities of Local Safety Councils and Chapters

BY TOM A. BIRKE

Sidney Williams Honored

Of special interest to Chapter managers is the recent announcement from the American Museum of Safety, New York, that the "Arthur Williams Medal" for meritorious service in the field of accident prevention has been awarded to Sidney J. Williams, assistant to the president of the National Safety Council. The award is made annually through a special bequest by the late Arthur Williams.

The recipient of the 1954 medal started his career on the staff of the National Safety Council as director of its first Industrial Department. Later he organized and headed the Council's Traffic and Transportation activities for many years. Mr. Williams went into semi-retirement a few years ago but continued to serve in a consultant capacity as assistant to the president of the Council. He is also a consultant for the Traffic Institute, Northwestern University, Evanston, Ill.

Mr. Williams is one of the pioneers in the safety movement and is widely known as a national authority in the field of accident prevention.

An Interesting Approach

A novel approach to the problem of accidents was made at the Annual Award Dinner of the Kansas City Safety Council, Mo. Instead of placing the emphasis on the accident occurrence, H. G. Crook, director of personnel services for Westinghouse Electric Corp., Pittsburgh, put the spotlight on the accidents that *didn't* happen, and showed just what their prevention means in terms of economic, social and humanitarian savings.

Commenting on the fact that accidents often lead to a feeling of insecurity and otherwise darken our mental outlook, the speaker said: "Effective accident prevention can prevent such results. We would do well to consider using as one theme in the safety movement, the phrase 'Security Through Safety,' for safety can contribute much to security, a desirable social and economic objective; and conversely, the absence of safety can mean the absence of present and future security."

Safety on the Seas

The Maritime Division of the Greater Los Angeles Chapter, National Safety Council, has compiled and distributed a timely bulletin, *Harbor Safety Rules*, a series of eight pertinent safety tips for harbor sailing, one of

which is a reminder that "Federal, State and Municipal laws prohibit negligent operation," and that reckless operation is a punishable misdemeanor.

The bulletin, which carries the Green Cross emblem along with anchor and lighthouse decorations, also lists the Inner Harbor speed limits. The closing sound admonition is "You may avoid summons to court or arrest by sharing the harbor with courteous consideration for others."

Novel Field for Contest

Under the sponsorship of the Atlanta Traffic and Safety Council, a safety contest is operating successfully among 21 contractor members of the Heating, Piping, and Air-Conditioning Contractors, Atlanta Association, Inc. The contest is now in its third year.

As a result of the competition, accident frequency has been reduced substantially, with a material cut in workmen's compensation rates for the Atlanta contractors. A monthly bulletin which reports standings and features a timely discussion of some particular hazard or pertinent problem is sent to the participants.

This is believed to be the first competition of its kind set up by a safety council in this particular field. Because of the hazardous nature of the work, the savings to date have attracted attention in the trade publications of the National Association and studies are now being made with the view of launching a similar contest nationally.

According to the Council's managing director, Robert B. Leopold, the contest has sparked

—To page 124



One of the youngest persons to receive The President's Medal of the National Safety Council was Larry Muldoon, age 12, who resuscitated Donn Doty, age 3, one of the youngest to be saved by artificial respiration. Willis B. Kyle, (right) presents the certificate to Larry while Earl Campbell, director of the Council's Western Region, looks on.

FIRE!



Put it out in seconds with a Kidde portable extinguisher!

When fire strikes, there's just one thing to do — Put it out *fast*! That's why it's so vital to have Kidde portable extinguishers near every fire hazard . . . because Kidde portables, with their special fast-acting trigger release, are made to swing into action at a moment's notice.

You just grab a Kidde CO₂ or Dry Chemical portable, aim the horn, and pull the trigger. Whoof! The fire's smothered right in its tracks!

And don't forget big hazards like spray booths, dip tanks, electrical equipment and flammable liquids. See that they get the built-in protection of a Kidde *Fully Automatic* CO₂ Fire Extinguishing System.

Don't wait — Contact Kidde today!

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Safety's Allies - the Children

THE PLANT SAFETY program of A. B. Dick Company, Chicago, was doing well, with room, of course, for improvement. But activities for safety off-the-job were on the short side. So it was felt that a contest might give a pick-up to safety both at work and at home.

Children between six and 14 were invited to write an essay on "What It Means to Me to Have My Dad (or Mother) Work Safely in a Safe Plant." Entries were in two age groups: 6 through 9 and 10 through 14. One first, one second, five third, and 10 honorable mention awards were offered in each group.

The contest was announced in the company newspaper, *Mimeographic*. Bulletin board notices were sent to supervisors with letters to foremen explaining the benefits to be derived from participation. Large posters reminded employees of the deadline. The most effective publicity was a personal letter mailed to each eligible child. Many parents commented on how important it made the youngsters feel.

The contest ran a few days more than a month. From 676 eligible children 108 entries were received. Boys and girls participated equally.

Each entry was given a code number and the writer's name blacked out for judging. Some of the essays packed a wallop, and all had considerable charm.

The company president, A. B. Dick III, sent a letter of commendation to each contestant, winner or loser, and enclosed a ballpoint pen and key

chain as a reminder to always practice safety at home, at school and at play. The 14 top winners were invited to a luncheon in the plant cafeteria to receive their awards. On arrival at the plant the children were met by their parents and given identification badges. They were given a demonstration of duplicating processes and an opportunity to operate one of the machines. Mr. Dick had lunch with them and their parents, followed by a tour of the plant and presentation of awards.

For the children it was a big thrill, and even the parents of children who didn't win commented on their children's delight in receiving the gift.

The contest seems to have brought the desired results. Many children stated this was the first real attention they had given to safety. Undoubtedly they will arouse interest among their playmates at school. The contest involved all members of the family and interest extended to employees who had no children participating.

Right: Safety Engineer George Nuernberger stops to visit with one of the young prizewinners and his dad.

Lower left: Children and their parents visit the plant and look over the display of prize-winning essays.

Lower right: A. B. Dick III, president of A. B. Dick Company, presents awards to first two winners in essay contest.



Ansul

is the only dry chemical
fire extinguisher backed
by a five year warranty!

Here is proof of Ansul's superiority . . . a *five year equipment warranty*, the only one of its kind in the fire control industry.

For the buyer of fire equipment this important warranty means many *extra* years of trouble-free protection plus freedom from costly and frequent maintenance checks and repairs.

The special design and construction features that make this warranty possible provide not only dependable protection but also *fast*,

effective fire control. Ansul's *weather-tight* construction keeps out moisture and resists corrosion. *Patented* nozzles deliver the right kind of stream for your fire protection problem. The *sealed pressure cartridge* puts Ansul's "Plus Fifty" dry chemical to work immediately—no delay or lag. And finally *rugged construction* makes it possible for Ansul equipment to give peak performance under the toughest operating conditions.

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Training for your personnel at your plant by Ansul specialists.



Customer training school at Marinette for your key safety personnel.



Visual aids on fire control for your safety meetings and other training.



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Call the Ansul Man!



Get in touch with your local Ansul man through the "yellow pages" or write ANSUL CHEMICAL COMPANY, Fire Equipment Div., Dept. F-33, Marinette, Wisconsin.



INDUSTRIAL HEALTH



*Abstracts of current literature
on Industrial Hygiene, Medicine, and Nursing*

BY F. A. VAN ATTA
Industrial Department, NSC

How Much Can the Heart Stand?

What Stress Does to the Heart, by Louis N. Katz. *Industrial Medicine and Surgery* 23:267-269 (June, 1954).

DR. KATZ considers stress any force or combination of forces, physical or emotional, which puts a load upon the heart and to which the heart responds. How the heart responds depends in some instances on whether it is normal or diseased. He concerns himself here only with the rheumatic, hypertensive and atherosclerotic varieties of heart disease.

There are many anatomical and physiological consequences of stress. There are also emotional consequences which appear in the form of taboos, phobias and prejudices and as heart disease of a purely imaginary sort engendered by physicians, nurses, social workers and other workers in the health agencies; and cases in which the heart trouble is exaggerated by people who come in contact with the patients.

Existence of such a problem is shown by the fact that in a report from a work classification unit in New York, it was stated that approximately one-fourth of the patients had no heart disease. This emphasizes the necessity for finding out the persons who *do* have heart problems. It should be stressed that this means finding everyone who has a heart problem, since more trouble can be anticipated from the unknown cardiac than from the known one.

The circulatory system is devised to meet and cope with stresses. Circulation is the key to ability to attack or escape in primitive nature and the system is designed to take care of this

adjustment effectively and automatically. Effectiveness of the adjustment can be improved and increased by training. It can be impaired by lack of use, as in protracted bed rest.

Under stress, the blood vessels open up or shut down to direct the blood to where it is needed most and the heart itself increases both its stroke and its rate. The heart in particular is able to adjust its output precisely to what is needed by dilatation or shrinkage as required. If the stress situation persists long enough, the heart may be required to increase its mass to permit it to carry on a greater amount of work.

The heart, like any other machine, has limits as to the amount of response to stress. The diseased heart generally is not different from the normal heart in its response to a stress condition except that it has less reserve and consequently less ability to adjust itself. This should be rather obvious because heart diseases either put an increased load on the heart or destroy some of the heart muscle and so decrease its ability to carry the load.

Work Is Normal

In considering how this applies to the person in industry with heart disease, one has to consider that work is a normal state for the adult. It must be considered just as normal as sleep, and the work to which one is accustomed cannot be considered, of itself, as detrimental. The work is very unlikely to have caused a heart attack which occurs during work unless the person was subjected

to an excessive stress to which he was not accustomed as a normal part of the job.

The work situation cannot cause closure of the coronary artery and clotting of the blood in it unless there was a severe injury of the chest or unless there was a pre-existing damage to the artery. Types of injury or stress which cause direct damage to the heart must be very rare because of the heavily protected position of the heart in the chest.

Under special circumstances, toxic materials on a job may lead to high blood pressure or dust inhalation to another form of heart disease but, aside from these special situations, work does not cause heart disease and especially coronary disease, hypertension or rheumatic heart disease.

Work can aggravate the symptoms of heart disease, either as the result of unusual effort or as the result of the disease becoming more severe quite independently of the job. The probability of the disease becoming more severe is one of the major reasons for periodic health surveys.

Where unusual stress or increasing disease produces a heart damage on the job, a real medical problem is produced in assessing the disability. It should be the problem of physicians rather than of lawyers.

One of the promising approaches to the problem is in the cardiac placement of work classification units. This approach has already shown that most work is not too strenuous for people with heart conditions, and that motivation, anxiety and taboos and prejudices play as great a part in the disability as the type of work to be done.

In any situation, it is better to keep the worker at the job to which he is accustomed rather than to transfer him to a strange job unless the job to which he is accustomed is a real hazard to the worker or to his associates.

Generally, it is not the kind of work, but the rate at which it is performed which is of major importance, even on strenuous jobs. Many victims of relatively severe heart disease can be kept on their same jobs if they can be permitted to work at a slightly slower pace or for fewer hours per day. Industry may thus retain the services of useful and loyal workmen.

Heart Patients On the Job

The Cardiac Can Work, by S. Charles Franco. Industrial Medicine and Surgery 23:315-320 (July, 1954).

HEART DISEASE is probably our greatest medical problem at the present time and as the proportion of older people in the population advances, the number of heart cases continues to grow. As this condition increases in the general population, it is also increasing in the industrial population as the proportion of older workers continues to increase. A basic management problem is what to do about the older employees who have heart disease.

The first problem is locating the heart disease cases. In the experience of Consolidated Edison Company in examining apparently normal employees past 40 years of age, 15 per cent were found to have evidence of heart disorders or of conditions potentially capable of producing heart disease. The medical service should also be capable of diagnosing acute heart cases when they come up on the job.

Having found the patient, he must be followed by careful examinations at regular intervals in order to put him in a proper work classification for his particular condition. In a condition where job assignments change continuously as they do in many segments of the public utility industry, this means that the physician must take the responsibility for restricting certain types of activities which appear to be poten-

—To page 115

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in seconds!*



...breathe cool, fresh AIR — not oxygen!

Don't waste valuable minutes at the scene of the emergency for your breathing equipment to start generating. Use the Scott AIR-PAK and you are ready to go in seconds. The AIR-PAK supplies all the cool, fresh air you need. You can go directly to the trouble source without concern for the concentration of gas or vapor because you are absolutely independent of surrounding atmosphere with the AIR-PAK.

No complicated training or practice is necessary. Cool air operation prevents fogging. Using air instead of oxygen inspires confidence in the most inflammable atmosphere. Clear, convenient gage assures dependable check on air supply.

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SMALL BUSINESSES and ASSOCIATIONS

By A. M. BALTZER and ROBERT D. CURRIE

*Small Business Program Staff
National Safety Council*

1954 Congress . . . No Filibuster Here!

Small Business Gets Help on Its Home Grounds is a choice theme for the small business session at the National Safety Congress.

Since this year's program is slanted entirely to local activity, it would be of special interest to managers or presidents of local safety councils, manufacturers' groups, chambers of commerce, association executives, and of course the owner or manager of the smaller concern. Again special effort will be made to stimulate attendance through special mailings to interested groups.

Clyde Schlueter, manager, Accident Prevention Department, Employers Mutual of Wausau, Wis., will open the small business program, outlining the successful approach to small business safety through associations, local safety councils and other groups.

Robert W. Gillette, secretary-treasurer, Wisconsin Council of Safety, Madison, armed with visual aids will describe the regional safety conferences which have been successful for many years in Wisconsin.

Robert S. Scott, safety director, Manufacturers' Association of Montgomery County, Norristown, Pa., will describe 25 years of successful safety activity which reaches hundreds of owners and supervisors of small companies.

Harry Brainerd, executive manager, The Western Pennsylvania Safety Council, Pittsburgh, will describe the efforts of the Small Business Committee of the Western Pennsylvania Safety Council and the results of a small plant safety activity survey conducted by this organization.

Charles Merideth, executive vice-president, Industrial Association of Quincy, Inc., Quincy, Ill., will lay the facts on the table why this Association just recently became concerned with accident prevention work and will describe the Association's initial steps in dealing with this problem.

A short, informal Association Award luncheon will supplement the morning session. Full honors will be extended and award plaques presented by E. C. McFadden, vice-president for industry, NSC and vice-president, Texas Employers Insurance Association, Dallas, to officials of the award-winning associations for outstanding contribution to safety in small firms. H. F. Reinhard, chairman, Small Business Committee and secretary, International Acetylene Association, will preside.

Readers are cordially invited to join us in the Cotillion Room of the Morrison Hotel, 9:45 a.m., Tuesday, October 19. Of course, you are welcome to the Association Award luncheon following the morning session. See us in Chicago!

Question: What is Small Business?

FROM TIME TO TIME we read of a successful safety program in an alleged "small" business. Recently we read an article, the title of which referred to an excellent safety program in a "small" organization. This concern employed 400 to 500 workers, had a full-time safety director, an assistant safety director and a full-time maintenance crew to work on machine guards.

To some, this firm may be considered small. We don't think so!

The National Safety Council has special membership service for small concerns and while the breaking point for this service happens to be at 100 employees, we think of a small business as:

1. One which could never hope to have even a part-time professional safety engineer.
2. One in which the owner or manager has a number of responsibilities, including prevention of injuries.
3. One where there is only one level of supervision between boss and worker.
4. An independent company such as laundry, automobile agency, contractor, retail lumberyard, store, foundry, etc., which is not a branch of a large corporation with a safety program.
5. One which does not receive comprehensive safety engineering service from any source and does not participate in activities of any safety organization.

The target of the Council's Small Business Program is those concerns who fall into the general scope outlined above.

ON THE CONGRESS PROGRAM:



Clyde Schlueter



E. C. McFadden



H. F. Reinhard



One Hand Operation! Easy-to-handle Rockwood WaterFOG nozzle is made of aluminum alloy, weighs only 5 pounds, 5 ounces. Nozzle design reduces reaction to a minimum.

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By using a lightweight, 10-foot applicator, he was able to approach the fire safely as low velocity Rockwood WaterFOG was discharged through the applicator, quenching flames, choking off oxygen and cooling the surrounding area thus preventing "flash back."

Rockwood WaterFOG is the result of discharging water through a specially engineered Rockwood nozzle that breaks water into tiny particles which burst into a blanketing mist of steam that smothers fire. The Nozzle shown in use here is a

1½" Type SG 48. It can also discharge high velocity WaterFOG, and straight water stream. Available for ¾", 1", 1½" and 2½" fire hose sizes.

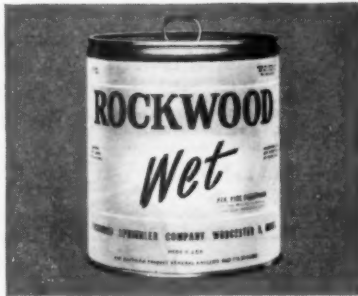
Plan to make this and other Rockwood firefighting aids part of your team.

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Rockwood Double Strength Foam Liquid, 3 parts mixed with 97 parts water, forms a quickly re-sealing, solid FOAM blanket or a highly heat absorbent FogFOAM pattern — depending on the Rockwood equipment used to discharge it. Available in 5-gallon cans or 50-gallon drums.



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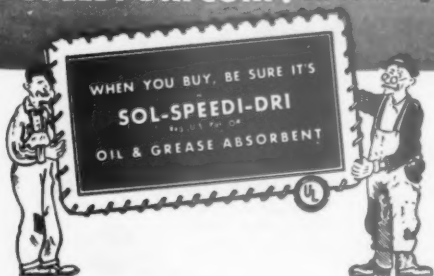


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Fire Prevention Week, October 3-9

"Let's Grow Up—Not Burn Up!" is the theme for this year's Fire Prevention Week, October 3-9.

Proclaimed by President Eisenhower in the United States and by Governor-General Massey in Canada, Fire Prevention Week dates back more than 40 years and is the oldest and most widely observed of special weeks.

Fire Prevention Week is a public service effort sponsored by the National Fire Protection Association in cooperation with the International Association of Fire Chiefs and the United States Department of Agriculture.

Educational materials on fire safety in home and industry for use during Fire Prevention Week have been prepared by the NFPA and are available at cost. Samples of these special materials may be obtained by writing: Publications Department, National Fire Protection Association, 60 Battery-march St., Boston 10.

New Jersey to Hold Fire Fighters' School

AN EXPANDED PROGRAM of outdoor training in fire fighting to meet the needs of fire fighting bodies throughout the state of New Jersey will be conducted by the New Jersey State Fire College at the National Guard Training Center at Sea Girt, N. J., on October 22-24. This was announced by John P. Weeks, Deputy Chief of the Newark Fire Department, president of the College, which is a division of the New Jersey State Safety Council.

The weekend sessions will be open to paid and volunteer firemen and members of plant brigades in New Jersey.

During the weekend training period, eight sessions will be conducted by experts in the field of fire fighting. Personal participation and individual instruction in all outdoor field work will be one of the features of the sessions. Reservations for the scheduled program are being received at the New Jersey State Fire College, 24 Branford Place, Newark, N. J.

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Keep them clean. Like dim lights and dull tools, dirty glasses are dangerous and inefficient. And what's the remedy for dirty glasses? SIGHT SAVER tissues. They're known and used by millions of people as the quickest and easiest way to clean and polish eyeglasses. They're properly treated with the right kind of SILICONE to quickly wipe away the best excuse men give for not wearing safety glasses.

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CASES for COMMENT

Compiled by ROBERT D. GIDEL

Senior Engineer, Industrial Department, National Safety Council.

Top Executive

The chief executive, who resided at a hotel, requested that a company employee pick him up at the hotel in a company car and transport him to his office. The office was approximately six miles from the hotel. While en route the car was involved in a collision with a commercial vehicle. Cause of the accident was the commercial truck going into a skid. The accident took place first thing in the morning before the executive had reported to his office.

The driver of the company vehicle was seriously injured and since he was actually in the line of duty there was no question but that his was a chargeable injury. However, there was some doubt in the minds of the company officials at the time as to whether they should take the executive's case as an industrial fatality, because he had not reported for duty and his being conveyed was merely a matter of expedience.

Decision: The judges did not make a formal decision on this case because during subsequent correspondence, the company recognized that the case was chargeable. However, it was necessary to consider additional facts in order to arrive at such a decision.

* * *

Further investigation brought out the fact that this driver was a department head, and the executive had requested that he pick him up so they could talk business on the way to the office.

Decisions in similar cases may be reversed on slight differences in the facts. For example, if this executive had merely called the office and had them send an ordinary driver over to pick him up, a different decision might have been in order. Or, if the executive had asked the company

to supply a driver for him because he had to get to the office for an important meeting, and the roads were slippery and he did not wish to drive himself in the company car assigned to him full time, the decision might be affected.

On the facts first given, one would be inclined to declare the case chargeable. This points up the importance of listing all details if you write to the judges for a decision. In most cases, if all the facts are thoroughly investigated, you will be able to determine chargeability without writing the judges.

Pickin' Pecans

Two hourly employees of labor classification were assigned the duties of driving a vehicle to three oil leases to perform clean up work and return to headquarters for further work assignment. It was customary for employees of this classification to be given work assignments without being accompanied by a supervisor. Hours of work for these employees were from 8 a.m. to 5 p.m.

The employees completed work on the leases at 2:40 p.m. and were driving back to headquarters for further work assignment when they decided to stop and pick some pecans for personal use from a tree adjacent to the

road. It was recognized by both employees that such activities were against company regulations. The employee who climbed the tree fell to the ground and fractured his hip, resulting in an estimated 60 days' disability.

Decision: This accident should not be included in the company's injury rates. The accident did not arise out of or in the course of the employment.

* * *

Would it be possible to anticipate this type of employee action?

Is it reasonable to expect that employees out with company vehicles will engage in various personal activities on company time? Wouldn't it be a good idea to periodically caution such employees against such action?

The employer may be held liable in other ways for acts of employees, even when they have removed themselves slightly from normal duties.

It's good practice to be as selective as possible regarding persons who may be in contact with the public while on company business.

Physical Disability

An employee lifted a bundle of cops (25 lbs.) and felt a sudden, severe pain in his right chest. This

—To page 114

Is that injury chargeable to your occupational injury record?

In some cases there is reasonable doubt as to whether the injury arises out of or in the course of employment. This can usually be decided by consulting ASA Standard Code Z16.1-1945. If there is any doubt as to interpretation of the Code, the Committee of Judges of the American Standards Association's Sectional Committee is available to review the facts.

A few cases are discussed here. It is hoped they will aid readers not only in determining the chargeability of accidents but also in planning preventive measures.

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THE ACCIDENT BAROMETER



Prepared by the Statistical Division,
National Safety Council

ACCIDENTAL DEATHS in May numbered approximately 7,300, a reduction of 500 deaths from May, 1953. Most of the decrease occurred in deaths from public non-motor-vehicle accidents, but deaths from home and motor-vehicle accidents also were down. Fatalities resulting from work accidents numbered about the same as last year.

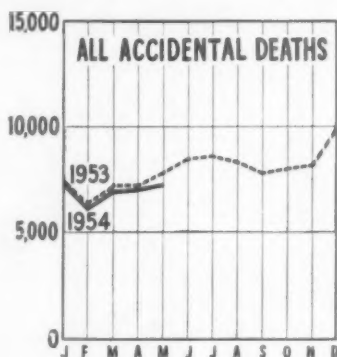
The total for five months was 34,700, or 3 per cent below 35,900 in 1953. Aside from no change in home accident deaths, all classes showed some reduction from last year.

Motor-Vehicle Deaths

The May total of motor-vehicle deaths was 2,960, a decrease of 3 per cent from May last year. Compared to 1952, it was a reduction of 8 per cent.

Deaths for the five months totaled 13,470, a decrease of 5 per cent from 14,150 in 1953. The five-month death rate per 100,000 vehicle miles is not available, but the four-month rate was 6.1, a reduction of 9 per cent from the 1953 comparable rate of 6.7.

For five months, 30 states had fewer deaths than in 1953, one had the same number and 17 had more deaths. Reporting cities with populations of more than 10,000 had a reduction of 12 per



	1954	1953	Change
May	7,300	7,800	-6%
Five Months	34,700	35,900	-3%

cent for May and 11 per cent for the first five months of the year.

Regional changes from 1953 in the five-month totals were:

North Atlantic	-10%
South Atlantic	-13%
North Central	-1%
South Central	+4%
Mountain	+2%
Pacific	-15%

Work Accidents

Deaths from work accidents numbered approximately the same as in May last year—1,200. The total for five months was 5,500, a reduction of 100 deaths from 1953.

The May frequency rate for plants in community council contests was 6.10 per million man-

hours, a decrease of 19 per cent from last year. The May rate for plants in 18 sectional accident prevention contests conducted by the National Safety Council was 5.45, a reduction of 13 per cent from 1953. The five-month rate in community council contests was 6.04, a decrease of 10 per cent; in sectional contests, the rate was 5.54, also a reduction of 10 per cent.

Public Deaths

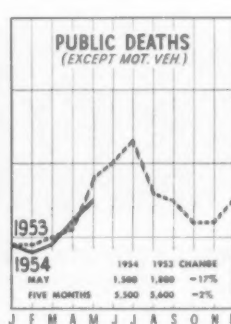
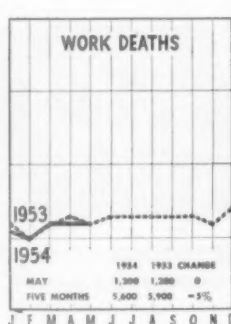
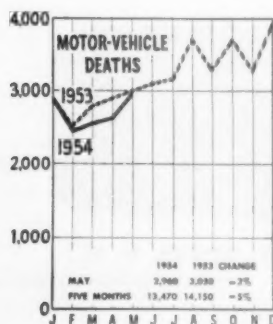
The death total for public non-motor-vehicle accidents in May was approximately 1,500, or 300 fewer than last year.

Deaths during the five months numbered about 5,500, a reduction of 2 per cent from 1953. There were sizable decreases in deaths from drownings and transportation accidents. A large increase occurred in deaths from falls and small increases in burns and firearms accidents. Most of the reduction occurred among children under 5 and persons 15 to 24 years old, but deaths of persons 25 to 44 and 45 to 64 years of age also were less numerous.

Home Deaths

May deaths from home accidents totaled about 1,900, a reduction of 5 per cent from May, 1953.

The five-month death total was approximately 11,400, no change from last year. Increases in deaths from burns and firearms accidents were offset by decreases in deaths from poisonings, mechanical suffocation and falls. A large reduction occurred in deaths of persons 65 years and over. Other age groups showed increases over 1953.





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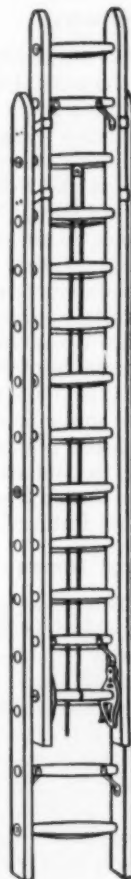


DAYTON Fig. 200 is a well constructed step ladder built for heavy industrial use to stand maximum abuse. Can be supplied with fully radded back for extremely heavy duty jobs. Bucket rack optional. All hardware zinc plated. Sizes 4' to 16'.



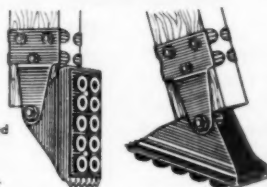
DAYTON Type A is constructed of tested airplane spruce, reinforced with rigid steel supports for great strength, lightness of weight. Handrails of steel guard large roomy platform for added safety. These famous ladders can be set up instantly, are easy to carry and fold compactly for storing. Automatic locking feature insures safety while ladder is in use. Standard rubber safety shoes no extra cost. Sizes 3' to 12' to platform.

DAYTON Fig. 102, a strong ladder for general industrial use. 1-5/16" x 2 3/4" side rails (available 1 3/4" x 3 1/4" side rails if desired—DAYTON Fig. 100). Three truss rods and four dowel braces per section for extra safety. Available with spring locks, rope and pulley if desired. All hardware is zinc plated. Sizes 16' to 40'.



DAYTON Type H, an extremely rugged type ladder, designed and built to meet the demand for a platform ladder with mill wright (rung) type back construction. Tool shelf on top. Ladder shoes standard equipment. Folds absolutely flat for easy storage. Features include pinch-proof type spreaders—corrosion resistant zinc hardware—slip proof treads. Sizes 4' to 16' to platform.

Rubber tread or spiked toe for double use.



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Wire from WASHINGTON

By HARRY N. ROSENFELD

Washington Counsel, National Safety Council



CONGRESSIONAL and related executive action came to a climax as Congress raced its proposed July 31 adjournment deadline, but found itself unable to adjourn by that time.

Highways

President Eisenhower proposed to the annual Conference of Governors a huge new highway construction program involving 50 billion dollars over a 10-year period. S. Res. 278 (Burke) requests the U. S. Commissioner of Roads to make a comprehensive study of the President's recommendation, and to report his results to the Congress early in 1955. No action is pending on this Senate resolution.

H. R. 7468 (Bennett), to regulate motor carrier transportation between points in a foreign country, to the extent that travel in the United States is involved, became Public Law No. 522.

Coal Mines

The Secretary of the Interior approved 38 of the 39 recommendations made by a five-member survey team which had worked four months on a study of management procedures and practices of the Bureau of Mines. He set July 1, 1955 as the target date for the full implementation of these recommendations which are designed to enable the Bureau to provide better services, at reduced costs, in line with Administration policy.

The survey report stated that "The Bureau of Mines has contributed very much to the increased safety of mining." A basic recommendation underlying its many specific recommendations was "that administration of health, safety and coal mine inspection activities should be separate and

apart from scientific and technical research activities." To this end, it recommended the appointment of an assistant director for health, safety and coal mine inspection, whose headquarters should be in Washington with a small staff. Research and analytical work for accident prevention, health and safety should not be carried out by the Health and Safety Division, was the team's recommendation.

Other recommendations were:

(1) "That in health, safety, and coal mine inspection, a major effort should be directed to educational work." The survey team said this objective could be accomplished without additional funds, and would be accelerated by a change in the type of personnel so as to stress teaching ability; (2) "That the Bureau increase its co-operation with State mine inspection departments, miners, and operators, to bring all State inspection services up to the general standard of the (Federal) Bureau's coal mine inspection." As this is accomplished, said the survey report, "the need for Federal coal mine inspection will decrease and eventually cease to exist," and the appropriations so released should be used for educational work.

In answer to protests that its approval of this report meant ending Federal coal mine inspections, the Department of the Interior assured a Congressional Committee that: "The Department does not advocate abandonment of mine inspections by the Federal government."

The Bureau of Mines has issued a notice of proposed rule-making, to amend its regulations governing the testing of explosives, stemming devices and blasting devices used in coal mining. All

interested persons were invited to submit comments.

H.R. 270 (Fenton) was approved by the House, and received favorable amendatory recommendation by the Senate Committee on Interior and Insular Affairs for Senate action. It would authorize an appropriation of \$500,000 to provide formal statutory authority to enable the Secretary of the Interior to investigate the causes and extent of outcrop and underground fires in coal formations, to determine methods for control and extinguishment and to plan and execute such projects. According to the Senate amendments to the House bill, in the normal case, the costs would be borne 50-50 by the Federal Government and the mine property owner.

Marine Safety

S. 3464 (Potter) to effectuate the Agreement for the Promotion of Safety on the Great Lakes, through radio, has been passed by both Houses. And S. 2453 (Tobey), to implement the International Convention for Safety of Life at Sea through radio, has also passed both Houses of Congress and been sent to the President for signature.

H. R. 8647 (Wainright) was approved by the House and favorably reported by the Senate Committee, and relates to the inspection of hulls and boilers of vessels of 15 gross tons or less.

Air Safety

The Air Coordinating Committee released a report on "Airport Safety." This is a review of the policies and action in the fields covered by the Doolittle Airport Commission, which was appointed by the President in May of 1952, to study airport safety. The A.C.C.

—To page 101

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BOOKS AND PAMPHLETS

Supervision

The Techniques of Supervision, by Alfred R. Lateiner, in collaboration with I. E. Levine. Published by National Foremen's Institute, New London, Conn. 207 pages. Cloth edition, \$4.00. Paper-back edition, \$2.00.

THIS IS A READABLE collection of ten chapters on subjects of interest to supervisors. Discussion and examples are practical as might be expected since Mr. Lateiner has spent much time in conference with supervisors and with upper management on problems relating to supervision.

Dealing with the boss, a subject neglected by most authors, is handled realistically. Lateiner says that many supervisors fail in selling a new idea because they spend most of the discussion period telling the boss why the old system is no good. The boss, Lateiner believes, doesn't like being told that the method he has been using is wrong. Therefore, the advice is: "Don't tear down. Discuss the merits of your own improved method."

All good supervision helps accident prevention and this book teaches good supervision. It is unfortunate that the chapter on accident control gets into a rather academic discussion of accident causes. The author ignores what most safety engineers believe—that nearly every accident has more than one cause—and presents a table showing the cause of 78 per cent of accidents as being human failure (unsafe acts). Nevertheless, when he gets into a discussion of remedies, he gives due attention to conditions.

The check list summaries of several chapters and a self-administering quiz on "supervisory know-how" are useful study aids.

The book could be used for home reading by a supervisor or as text material for a conference course.

Glenn F. Griffin

Air Pollution

Accepted Limit Values of Air Pollutants. Published by U. S. Bureau of Mines. 1954. 6p. Free. Information Circular 7682. Available from the Bureau Publications Distribution Section, 4800 Forbes St., Pittsburgh 13, Pa.

Coal Mines

Lessons from Intensive Dust Sampling of a Coal Mine. Published by U. S. Bureau of Mines. 1954. 12p. Free. Information Circular 5054. Available from Bureau, Publications Distribution Section, 4800 Forbes St., Pittsburgh 13, Pa.

Construction

Standards for the Construction and Protection of Piers and Wharves. Published by National Fire Protection Assn., 60 Batterymarch St., Boston 10, Mass. 1954. 24 p. 35c.

Fluorine

Review of Literature on Health Hazards of Fluorine and its Compounds in the Mining and Allied Industries. Published by U. S. Bureau of Mines. 1954. 55p. Free. Information Circular 7687. Available from Bureau, Publications Section, 4800 Forbes St., Pittsburgh 13, Pa.

Mines

Inspection and Testing of Mine-Type Electrical Equipment for Permissibility. Published by U. S. Bureau of Mines. 1954. 23p. Free. Information Circular 7689. (Revision of IC 7185.) Available from Bureau, Publications Distribution Section, 4800 Forbes St., Pittsburgh 13, Pa.

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NACA Curbs Jet Crash Fire Menace. *Aviation Week*. July 5, 1954. p. 33.

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Problem Drinking in Industry. By Thomas A. Hogshead. *A.M.A. Ar-*

chives of Industrial Hygiene and Occupational Medicine. June, 1954. p. 527.

Chemicals

Toxicology of Mono-, Di-, and Tri-Propylene Glycol Methyl Ethers. By V. K. Rowe. *A.M.A. Archives of Industrial Hygiene and Occupational Medicine*. June, 1954. p. 509.

Cranes

Hydraulic Buffers Can Reduce Crane Accidents. By W. H. Lehr. *Plant Engineering*. July, 1954. p. 128.

Fire Protection

Progress in Protection at Glass Manufacturing Plants. *Sentinel*. July, 1954. p. 3.

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The Accident Parade. By Dr. K. T. Johnstone. *Industrial Medicine and Surgery*. July, 1954. p. 307.

Dermatitis from Waterless Hand Cleaners. By George E. Morris. *A.M.A. Archives of Industrial Hygiene and Occupational Medicine*. June, 1954. p. 507.

A Sound Industrial Health Program. By John F. Welch. *Nursing World*. June, 1954. p. 27.

Human Factors

The Human Element in Equipment Design. By Gloria W. Grover. *Pacific Factory*. June, 1954. p. 44

Insecticides

Control Methods Help Rid Your Plant of Insects. By H. Nye Josleyn. *Plant Engineering*. June, 1954. p. 107.

Cyanamid's Versatile Insecticide. By Richard G. Tauseg. *Agricultural Chemicals*. July, 1954. p. 49.

Explosion Characteristics of Insecticidal Aerosols. By A. H. Zeoman and E. R. Van Leeuwen. *Agricultural Chemicals*. April, 1954. p. 75

Ladders and Scaffolds

Give the Wood a Good Look! By L. J. Markwardt. *Safety Maintenance & Production*. July, 1954. p. 12.

Lead Poisoning

Treatment of Lead Poisoning by Chelation. By Dr. Lawrence H. Cotter. *Journal of the American Medical Association*. July 3, 1954. p. 906.

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Plant Safety—A Maintenance Job. By Bart Benedict. *Pacific Factory*. June, 1954. p. 66.

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Planning Effective Safety Meetings. By Walter A. Cutter. *Safety Standards*. June-July, 1954. p. 1.

Metal Poisoning

Nickel Poisoning. By Dr. F. William Sunderman and Dr. John F. —To page 129



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Cooperation Between
Management and Workers!**

● Putting color to work creates more pleasant surroundings that enhance productive efficiency and morale in new, modern plant of leading builder of heavy metal forming machinery!



**Here's How You Can Get a FREE Color
Engineering Study of Your Plant!**

● Why not investigate what COLOR DYNAMICS will do for your plant? Send for our free book which explains what COLOR DYNAMICS is and how it works. Better still, call your nearest Pittsburgh Plate Glass Company branch and ask to have a representative give you a comprehensive engineered color study of your plant without cost or obligation. Or mail the coupon at the right.

Metal forming division, painted according to COLOR DYNAMICS, is typical of the bright and cheerful environment in the modern plant of The Cyril Bath Company, of Solon, Ohio. Designed by Dalton-Dalton & Associates, of Cleveland, Ohio.

THE PRACTICAL, everyday experiences in the modern plant of The Cyril Bath Company, of Solon, Ohio, again demonstrate how the "engineered" use of color—according to Pittsburgh's modern painting system of COLOR DYNAMICS—increases productive efficiency, reduces danger of time-loss accidents and improves the spirit of cooperation and loyalty between management and workers.

● The Cyril Bath Company has been a pioneer in the art of bending rolled, brake-formed and extruded metal shapes. It has developed tangent benders; radial, draw and contour formers; and press brakes. It also makes parts with this equipment. Such machinery and parts are furnished to leading manufacturers of railway coaches, automobiles, trucks, buses, jet engines, farm equipment, household appliances, structural components and many other products.

● The benefits resulting from the use of COLOR DYNAMICS are best summarized in the following comment of Frank J. Phillips, Sales Manager of the Bath Company:

"With COLOR DYNAMICS we have relieved eye strain, offset fatigue and lessened risk of accidents. This has increased efficiency and safety. The pleasing environment has improved the mental attitude of our working force. Loyalty and cooperation have been enhanced. The feeling of pride among our workers has resulted in cleaner work areas, simplifying our housekeeping.

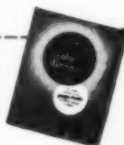
"The clean, well-ordered appearance has also helped to build confidence and goodwill among our customers, as it is visual evidence of our skilled and efficient workmanship. These benefits we consider to be a distinct bonus—as painting the COLOR DYNAMICS way has cost us no more than conventional maintenance painting."

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Pittsburgh Plate Glass Co., Paint Div.
Department NSN-94, Pittsburgh 22, Pa.

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The security of our homes is our worthiest goal. And providing it is a privilege unique in a country like ours, where each of us is free to choose his way.

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If you've tried to save and failed, chances are it was because you didn't have a *plan*. Well, here's a savings system that really works—the Payroll Savings Plan for investing in U.S. Savings Bonds. This is all you do. Go to your company's pay office, choose the amount you want to save—a couple of dollars a payday, or as much as you wish. That money will be set aside for you before you even draw your pay. And automatically invested in Series "E" U.S. Savings Bonds which are turned over to you.

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CIGARETS, CIGARS, MATCHES, ETC.,
IMMEDIATELY EXTINGUISHED!

No Smoldering is Possible!

It's not the cigaret or cigar that's being smoked that causes fires—it's after they're discarded and forgotten that they become a terrible fire hazard!

SIPCO DUNKING STATIONS end this fire hazard once and for all by immediately drowning every last dangerous spark.

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Integral brackets for hanging, wide slot and rugged piano-hinged cover. They are simplicity itself to maintain and clean.

Why not rid your plant of smoldering fire hazards by installing SIPCO DUNKING STATIONS? They are economical, attractive—the perfect solution to the smoking problem in your plant!



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Safety of men and machines in your shop is your primary concern. It's ours, too. During the years that ACCO Registered Slings have been available, they have been put to every conceivable laboratory and field test. They have proved themselves. They are no experiment. Don't YOU gamble with safety. Specify ACCO Registered Wire Rope Slings for all your lifting jobs.

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- (on bodies, links, safety shackles, hooks)
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tion. Certificate of assistance to
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man, Calif.—drowning. Certi-
ficate of assistance to ALBERT
MILLER.

Study Casualties of Competitive Sports

Bloody noses, strained muscles, lumps and bruises are relatively common in competitive sports, but injuries severe enough to cause the death of a participant are quite rare, statisticians of the Metropolitan Life Insurance Company find.

The statisticians, studying the causes of deaths among the millions of males between the ages of 16 and 29 insured under Metropolitan industrial policies, discovered that less than one in each 300 accidental deaths could be attributed to competitive sports. During the two years of study—1951 and 1952—only 11 deaths in this group resulted from competitive athletics. Baseball and softball accounted for four of these deaths, golf for three, basketball for two, and football and track for one death each.

Information gathered from a wide variety of sources supported the results of the study of Metropolitan-insured males.

In baseball, the professional major leagues with 400 players have not had a fatality from injuries on the field since 1920. In major professional hockey—regarded as the roughest of sports

—there has not been a death since 1937. Professional basketball has no record of a fatal injury in a game. The only death on the field in soccer in four decades was the result of a heart attack.

National statistics on fatalities from baseball are not available, but in spite of the good record of the major leagues, the sport probably accounts for more fatal injuries than any other. This is a reflection of the game's wide popularity rather than its hazards.

The statisticians pointed out that it is impossible to compare the risks in the various competitive sports, because figures on the number of persons participating in each are not available. However, football and boxing—the two most popular “contact” sports—are responsible for a large proportion of the accidental deaths.

In the five-year period from 1949 through last year, 65 direct and 29 indirect deaths from football have been reported. The direct deaths were those from injuries sustained during play—in tackling, blocking, piling up—while those classed as indirect were due to infection, heart failure, pneumonia, and other conditions resulting from the game.

High school football accounted for 37 of the direct deaths. This was equivalent to an annual death rate of 1.2 per 100,000 for the 600,000 students a year playing the game. College football, with about 65,000 players each year, had four direct deaths with about the same death rate. Professional and semi-professional football had nine deaths and sandlot football had 15 during the 1949-53 period.

Annual surveys by *The Ring*, the magazine of boxing, for the same five-year period showed a total of 12 deaths among professional boxers and 17 among amateurs. Because of the efforts of state boxing authorities to make the sport safer, deaths among professional fighters have been decreasing in recent years.

“I wasn’t born in a log cabin,” declared the candidate, “but my folks moved into one as soon as they could afford it.”

Wright Hoists



WRIGHT Frame 1 1/2
4-part Reeved
Speedway
1 1/2 and 2-ton
capacities

WRIGHT Frame 1
Speedway
1/2 to 1-ton capacities

**1954
MODELS**

Nothing to adjust but the cam!

• The brake assembly pictured above for the WRIGHT FRAME 1 SPEEDWAY HOIST is your assurance of maximum hoist service... minimum down time. Adjustment of this cam-actuated brake to compensate for brake lining wear is literally “as simple as ABC.” *There is no guess work about it.*

When the load hook starts to drift, remove the screw shown at position No. 1 (see picture), swing the cam around so that position No. 2 is in line, and replace the screw that secures the cam to the solenoid lever arm. For the final one-third of brake lining wear, set the cam at position No. 3. This repositioning of the cam is the **ONLY** adjustment to be made by the users of WRIGHT Hoists. The

brake springs and solenoid are factory-set...NEVER need adjustment for brake lining wear.

Long life is a built-in characteristic of these hoists. They are built and guaranteed for service to the limit of the duty cycle of 1 1/2 H.P., 30 minute, totally enclosed NEMA specification motors. These 1954 models provide full accessibility of parts for lowest maintenance costs. To get at the brake and controller, you remove two screws which hold the end cover. To get at the limit switch, transformer, and solenoid coil, you remove three screws and the side cover comes off. With this full accessibility you can make a brake adjustment or replace electrical parts in a matter of minutes.

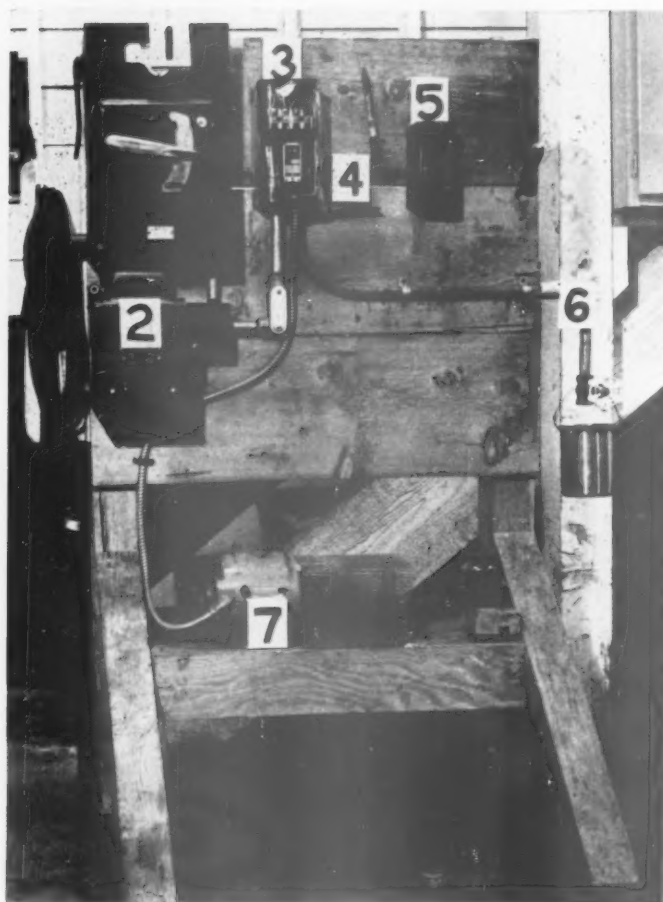
Remember, **PRICE + MAINTENANCE = COST.** For full details on the low-cost WRIGHT Frame 1 Hoists see your WRIGHT distributor or write our York, Pa., office for literature.



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Visual Aids Demonstrate Tag-Out Rule



TAGGING-OUT electrical controls and equipment at Rayonier, Inc., is continually stressed to employees in the company's five pulp and paper plants. General safety rules spell out the procedure for this practice for employees who work on equipment and who must protect themselves by use of equipment repair tags.

Rayonier decided the subject was important enough to merit greater emphasis than a general safety rule. Walter M. Kullrich, chief electrician, Rayonier's Shelton Division, came up with the demonstration unit pictured here, to emphasize the necessity for shutting off the main source of power before working on equipment which is started and stopped

by push button switches.

In his demonstration, Kullrich introduced water into a section of conduit which started a motor on the board. He also dropped metal filings in the starter switch to show how this could start the motor. Juices from wood in the mill, wet pulp and other material could have a similar effect.

The idea for the demonstration was developed by Kullrich after a number of cases in which equipment was started accidentally. Causes ranged from moisture in a conduit, foreign material between contact points in the magnetic line starter, to failure of equipment, such as a broken part in either the push button switch or in the line starter.

On at least two occasions, me-

chanics narrowly missed severe injury when machines started while they were making repairs or adjustments.

This display unit was made from materials normally used in plant operation. Numbers in the picture indicate parts of the unit as follows:

1. Ordinary circuit breaker or disconnect switch commonly used in the plant to shut off the power to a piece of equipment not in operation.
2. A one-to-one ratio safety transformer to eliminate the potential to ground in all standard 110 volt circuits.
3. Magnetic line starter operated by push button switch. Enclosed in plastic cover to make operation visible.
4. Two metal terminals mounted on non-conductor shelf connected to starter. Contact causes starter to kick in and simulates a condition in which foreign material forms a contact somewhere in starting equipment.
5. Ordinary stop and start push button switch.
6. Cover plate removed on conduit fitting reveals two wires with insulation partially removed. Wires are connected to starting switch and when contact is formed by contaminated water or any other conductor the motor starts. This simulates a condition where moisture in a conduit or starting equipment forms a contact which starts the motor.
7. A small electric motor with a noise maker (for effect) on the rotor shaft guarded by wire mesh.

The water can hanging on the valve (6) catches water drained off after the demonstration. The small paper box on low platform contains metal filings used in the demonstration.

As a result of the demonstrations, a surprisingly large number of employees have admitted they did not realize the importance of the tag-out rule, and have pledged themselves to strict observance in the future.

The project went over so well that Harold Springer, chief electrician at Port Angeles Division, constructed a smaller display board. He used it for demonstrations before all safety committee members and maintenance personnel. It was then shipped to the Grays Harbor Division.

Fad: In one era and out of the other.



B R E C K

FOUR WAYS TO PROTECT SKIN FROM INDUSTRIAL DERMATITIS

BRECK pH7 PROTECTIVE CREAM protects the hands against irritants such as lubricating oils, cutting compounds, tar, greases, rubber dust, aromatic and hydrocarbon solvents, fiberglass, paint and iron dust. It forms a non-sticky, invisible film over the skin. Breck pH7 Protective Cream is easily applied. It is easily removed with Breck Hand Cleaner or soap and water.

BRECK WATER RESISTANT CREAM protects the skin against the action of water and water solutions such as liquid coolants, emulsified cutting oils, mist and spray from alkali baths and plating solutions, cement and lime. It covers the skin with a light, protective film which is not slippery or sticky. Breck Water Resistant Cream has a pH value of 8.

BRECK HAND CLEANER helps eliminate the use of harsh, gritty, highly alkaline or defatting hand cleaners. It does a thorough cleansing job, yet is mild and non-irritating to the skin.

BRECK WORK CREAM is used after exposure to degreasing materials and at the end of a day's work. It substitutes fatty materials for the natural skin oils which have been removed. In this way Breck Work Cream helps keep the hands smooth, pliable and lubricated.

A Breck Industrial Preparations Booklet



will be forwarded to you upon request.

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Mine Safety In Many Lands

Almost every day, in some part of the world, young men and women board a plane, ship or train, to study abroad under fellowships granted by the United Nations and the Specialized Agencies associated with it.

Last year, more than 2,000 fellowships and study grants were awarded. Sixty nations have benefited.

Are the fellowships useful? Do the fellows take back to their countries any new and useful knowledge or skill?

Yngve Hagerman of Sweden provides one answer.

Hagerman was sent by the International Labor Organization on a six-months fellowship to France, Germany, Canada and the United States. His subject, important to his country, was safety in rock blasting. Because of Sweden's granite rock formation, there can be little construction or mining work without blasting.

"Grass Roots" Tour

After a short period of briefing at ILO headquarters in Geneva, he spent three weeks in France, three weeks in Germany, three weeks in Canada and three months in the United States.

Hagerman met nearly a thousand people in the four countries directly concerned with industrial safety problems, visited Government offices, research institutes, industrial safety associations, mines and plants manufacturing protective equipment.

As Chief of the Mining Department of the Swedish Workers' Protection Board, Hagerman has definite responsibilities in the prevention of mining and tunneling accidents.

In all four countries he was given the opportunity of seeing the latest safety measures. Some were so recent that draft rules with regard to them have not yet been published.

In Germany, he was given the latest draft with regard to the testing of protective equipment.

In America he was shown the newest development in roof support and roof bolting. Hagerman was struck by the extent to which conditions vary in all the four countries and yet there was something to learn from each.

France has old surface plants at her mines but modern equipment underground. Germany has modern research institutes and a large number of them. Due to wartime destruction, her mining plant is new.

In Canada, he visited a mining region which was all rock and where conditions were therefore

comparable to those in Sweden. The cages and shafts were better arranged than in Sweden. The Canadians have made advances in rope and safety-catch testing which were very interesting to study.

There was also in Canada a well organized mine rescue operation.

In the United States, with its vast mining industry, he had an opportunity of seeing every kind of mine. Conditions and safety rules varied from state to state. "Generally, in the U.S. they are more advanced with regard to protective equipment than we are," he says. "For example, in some mines, eye-protection was compulsory throughout the shift, whether the miner was above or below the ground."

—To page 90

Reknock of Opportunity

By DON E. MUMFORD

OPPORTUNITY first gave a good resounding knock for Off-the-Job Safety with the issuance of our first Off-the-Job Kit several years ago. The reverberations from that knock were good. Many indeed are the employers, large and small, who responded and have found for themselves great opportunities and progress resulting from their efforts in Off-the-Job Safety for their people.

But good old opportunity didn't let us down. She thought of those Chicago traffic policemen with their persistent blowing of whistles, so this time she banged in with a bright yellow, mighty attractive folder containing the new Off-the-Job Safety Kit. I understand the Council is making these available at the low cost of one dollar per kit, and frankly I don't know how one could spend a dollar to better advantage.

The inclusion of the Family Safety Committee plan which has been so meaningful to New York Central employees and so splendidly used by Union Carbide and Carbon Corp. throughout its Divisions is in itself worth far more than that. The article entitled "Home Safety—A Family Project" in the July NATIONAL SAFETY NEWS and the featuring of Electro Metallurgical's Off-the-Job Safety program in the July 1954, issue of the Ohio Industrial Commission's *Monitor* are indications of how Union Carbide has become a constant prize winner in Safety.

It is our hope that through the impetus of this new information pack, Off-the-Job Safety will take another long step toward becoming a permanent and productive part of the American industrial pattern.

DON E. MUMFORD is Chairman, Off-the-Job Committee, Industrial Conference, National Safety Council.



GRA-LITE OFFERS PROOF

GREATER PROTECTION, LONGER LIFE ON EVERYDAY JOBS



Gra-lite garments . . . originally created in special designs for only the toughest of industrial chemical hazards are currently available in **all production patterns** . . . aprons, coveralls, coats, overalls . . . featuring unique armored seams, high abrasion resistance and extraordinary durability . . . the same qualities that earned it a "trouble-shooter" reputation on extremely hazardous jobs.

Remarkable Gra-lite durability means lower replacement costs. Armored seams give positive protection against seepage. Resistance to laundering chemicals adds still longer life.

SEAM'S THE SECRET



Armoring is a fusing of additional Gra-lite over and through garment seams. It is **not** a coating process but is rather a permanent sealing of all threads and potential seepage points.

WRITE FOR A TEST SAMPLE

We will be pleased to send you a Gra-lite swatch with specimen armored seam for test purposes. Just write giving the chemicals normally found on-the-job.

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Safety Gets Attention at Picnic



ONLY FREE RIDES for the children and free barbecue sandwiches attracted more attention than the safety display at the recent open house picnic held by Jayhawk Works of the Spencer Chemical Company at Pittsburg, Kansas.

The display consisted of a few of the many items of safety equipment used to protect employees on the job. "Mr. Safety," shown

at the left is protected from head to toe and would be protected in any atmosphere made unbreathable by toxic or irritating contaminants.

The picture of the man fishing and the one wearing bandages were painted by an employee and the display was supervised by George Bell, safety inspector.

Noise Symposium to Be Held in Chicago

HOW INDUSTRY can reduce machinery noise will be the theme of the fifth annual National Noise Abatement Symposium to be held October 21 and 22 on the Illinois Institute of Technology campus, Chicago.

The symposium will emphasize noise reduction in order to make people more conscious of what can and has been done in the field of noise abatement, according to Stannard M. Potter, symposium chairman and supervisor of sound and vibration control at Armour Research Foundation of Illinois Institute of Technology.

Factory problems will be analyzed in discussions on noise control of machinery, handling materials, testing products, and the sales appeal of quiet products.

Reduction of noise in house-

hold appliances, such as fans, air conditioners, and refrigerators, will be surveyed in another session on home noises.

Other sessions on vehicles will include talks on everything from subways to aircraft noises.

Included in the meeting will be a tour of the acoustical laboratories of Armour Research Foundation and a series of round-table discussions on the following:

Recent developments in noise abatement legislation.

Medical advances in hearing problems.

Psychological aspects of noise as they affect sales of machinery.

Vehicle and construction noises in cities.

The symposium program was planned at a meeting attended by representatives of the following sponsoring organizations:

Armour Research Foundation, Acoustical Society of America,

American Medical Association's Council on Industrial Health, American Society of Safety Engineers, National Noise Abatement Council, American Society of Planning Officials, American Industrial Hygiene Association, and Acoustical Materials Association.

Committee to Study Air-Cleaning Equipment

Effluent air and gas cleaning equipment was announced as a new project for a national committee to be composed of representatives of all organizations concerned. The committee will work under procedures of the American Standards Association.

The committee will work out standards relating to the performance of effluent air and gas cleaning equipment or devices used for treatment of substances flowing into the air.

The following groups have shown interest in this project for an American Standard: Air Pollution Control Association, American Conference of Governmental Industrial Hygienists, American Electroplaters Association, American Foundrymen's Society, American Industrial Hygiene Association, American Petroleum Institute, American Public Health Association, American Society of Heating and Ventilating Engineers, American Society of Mechanical Engineers, American Society of Safety Engineers, American Society for Testing Materials, Automobile Manufacturers Association, Electric Light and Power Group, Foundry Equipment Manufacturers Association, National Association of Mutual Casualty Companies, National Bureau of Standards, National Research Council, National Safety Council, Navy Department—Bureau of Ships and the Society of Automotive Engineers.

The American Society of Mechanical Engineers and the American Society of Heating and Ventilating Engineers were approved by the Safety Standards Board of the American Standards Association as possible sponsors.

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in EYE SAFETY**

K-LENS-M
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Liquid **LENS CLEANING
and ANTI-FOGGING**



**Brings Clear
Safe Vision
to Your Workers**

Here's the modern way to promote the wearing of Safety Goggles. Install K-LENS-M Lens Cleaning Cabinets with K-LENS-M Anti-Fogging Stations, endorsed by Safety Engineers, to provide clean, clear safety goggles for your workers. K-LENS-M Lens Cleaner and K-LENS-M Anti-Fogging Liquid are used by leading manufacturing plants, packing houses, canneries, public utilities, government installations and business offices.

Easy-to-use, safe, **EFFECTIVE ON GLASS OR PLASTIC**. Long-lasting K-LENS-M Liquid and

Tissues are dispensed by a compact metal dispenser cabinet containing large bottles of K-LENS-M Lens Cleaner and K-LENS-M Anti-Fogging Liquid as well as lint-free tissue. Equipped with spray pumos and disposal space for used tissue. Easy to install, use and service. **Send for Free sample on company letterhead.**

Also available for off-premise use in individual pocket-size plastic "Twinkit," containing a bottle of K-LENS-M Lens Cleaner and a bottle of K-LENS-M Anti-Fogging Liquid.

K-LENS-M Complete Lens Cleaning and Anti-Fogging Equipment

THE WILKINS CO.
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Manufacturers of

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Liquid Lens Cleaner
Lint-Free Lens Tissues
Anti-Fogging Liquid
Dispenser Cabinets
Anti-Fogging Station

VISIT BOOTH 58—NATIONAL SAFETY CONGRESS & EXPOSITION

Laminated Ladder Stands Severe Tests



Composite wood beam ladder demonstrates high safety factor for firemen, utility workers, and other operations where a heavy duty, non-conductive ladder is needed. This ladder supported 1,580 pounds pressure after one outer layer broke at 1,510 pounds.

A NEW LAMINATED wood ladder, said to be twice as strong as the standard type with solid wood beams, has been developed in answer to requests from fire department, utility company, and general industry personnel, preferring wooden ladders for certain locations, particularly around electrical equipment.

Key to the new ladder's strength is its composite wood beam construction, made possible by modern glues and gluing techniques, and applied for the first time in this country to ladder construction. It is similar to that used by fabricators of laminated wood arches and trusses for the construction industry, and by shipbuilders producing modern wood minesweepers and other marine craft.

Developers of the new composite beam ladder are Engineering & Laminating Corp., the Consolidated Gas, Electric Light & Power Company, both of Baltimore, and Timber Engineering Company, research affiliate of the National Lumber Manufacturers Association.

In recent tests at the TECO

laboratory one of the laminated beam ladders, composed of hickory, oak, and Port Orford cedar laminae, supported 1,510 pounds before one hickory outer layer broke. Additional loads, well beyond specification requirements, failed to produce further breakage. The other laminated beam ladder, having greenheart instead of hickory and oak outer layers, supported 1,580 before showing signs of failure.

In addition to establishing strength factors, the tests showed that unexpected breaking is virtually eliminated in the laminated ladder, as its glue lines interrupt the continuity of wood grain in its cross section. Both laminated beam ladders gave loud warning sounds of cracking before their outer layers, only, broke, then continued to support greater loads for a longer time than would be required in actual use.

The hickory-oak-cedar ladder was designed by Consolidated's chief engineer, H. L. von Hohenleiten, and the greenheart-cedar type was designed by Frederic C. Jay, vice-president and general manager of Engineering & Lami-

nating, and TECO technologist Norvelle G. Hundley, who conducted the tests.

Concrete Slab Roofs Withstand Every Test

IN A RECENT laboratory test precast concrete channel slabs, properly sealed, did not buckle enough under even intense heat to permit roofing materials to drip through and feed fires raging within a structure.

The test, conducted by the Pittsburgh Testing Laboratory for a group of concrete roof deck manufacturers, demonstrated that concrete roof decking, fireproof in itself, acts in several other ways to increase the fire-resistance of a building.

Although the temperature within the test furnace rose as high as 1700° F, the Laboratory reported there was no evidence of dripping of roofing materials between any roof joints, which had been sealed with an asphalt asbestos mastic. At no time during the test did the roofing on top of the channel slabs catch fire. Water from an earlier rain was still on the roof in places after the test.

The two-hour test was conducted at the Porete Manufacturing Company, North Arlington, N. J. An 8 by 8-foot furnace was constructed of concrete blocks and lined with fire brick. Three 2 by 8-foot channel-shaped slabs formed the roof, with the open ends sealed with cement and the joints sealed with mastic, applied 3½-inches wide and ⅛-inch thick in the center, feathered thin to the edges. A four-ply felt and pitch roof was applied, with one-inch-thick insulating material between the slabs and the roofing material.

Deflection dropped from a maximum of 2¾ inches immediately after the burners were shut off to 2¼ inches after the chamber had been allowed to cool to 500 degrees. The testing laboratory reported the inside of the combustion chamber was clean at the end of the test, with no indication of ash or other unconsumed residue.



"I FLEW into Wausau shortly after a British jet pilot, off his course, landed there with a thimbleful of fuel left. He certainly had good reason to appreciate his stop in Wausau. So did I.

"I spent an interesting hour with County Agent Mac McAleavy (picture at right). 'Wausau people are the kind you like to work with,' he said. 'Twenty years ago this county grew only a few scattered acres of alfalfa. Couldn't grow it here, people thought. We did some research and came up with a solution. The farmers took to it and went to work. Today they grow over 100 times the alfalfa they did in the 30's.'

"Implement-dealer Herman Rakow (above, right) described Wausau's unusual *do it yourself* spirit. For instance, in maintaining farm equipment . . . '75% of the parts we sell are installed by the farmers themselves. That's about 5 times the ratio you'll find in most other farm communities.'



"Then I saw the other frontier of Wausau industry — the giant, modern plant of the Marathon Corporation. Here, where 3 million paper cartons are produced in a single day, resident manager Oscar Eggebrecht (above, left) showed me one of the world's biggest glueing lines, and sixteen freight cars lined up inside the building!

"They're friendly people in Wausau. They're energetic people. You sense their honesty and common sense. You see the product of their individualism. And you know that any company that has called Wausau home for over 40 years must be a pretty good one to do business with."

What is there about Wausau, Wisconsin, that makes it the ideal home for one of the world's most important insurance companies?

Employers Mutuals invited the head of a famous food company to visit Wausau to find out. Here is his story.

Wausau Story

By E. B. COSGROVE, Chairman of the Board, Green Giant Company



"... the kind you like to work with . . ." Mr. Cosgrove (right) and County Agent McAleavy.

Employers Mutuals of Wausau are "good people to do business with."

Yes—as Mr. Cosgrove discovered, there's such a thing as a *Wausau personality*. But you don't have to go to Wausau to find it. It's a certain good way of doing business. You'll meet it in all our 89 offices throughout the country.

Employers Mutuals handle all lines of casualty and fire insurance and are one of the world's largest in the field of **workmen's compensation** insurance.

If you think workmen's compensation insurance is just "a convenient way to pay the inevitable cost of accidents," you should talk to an Employers Mutuals man. He will demonstrate that, more than in any other kind of insurance, the cost of a workmen's compensation policy is controllable. The better the company, the more controllable. Phone our local office, or write Wausau, Wisconsin.

Employers Mutuals of Wausau



Establish New Records In Mining Safety

SIX NEW SAFETY RECORDS were established in the mining industry during the 1953 National Safety Competition, conducted by the Bureau of Mines, U. S. Department of the Interior and the industry.

The new records are:

1. One hundred and ninety-seven mines and quarries chalked up perfect no disabling-injury accident records.
2. New lows in injury-frequency and severity rates in anthracite mines were recorded.
3. Similar new lows for bituminous-coal mines and metal underground mines.
4. Injury-frequency rate at quarries lowest yet recorded.
5. An enrollment of 583 mines and quarries located in 41 states, operating a total of 156,798,125 man-hours. Both are new records.
6. Mining industry's injury-severity rate of 4.039 days lost per 1,000 man-hours and the injury-frequency rate of 22.22 per million man-hours best record since competition began in 1925.

A bronze Sentinels of Safety trophy provided by *The Explosives Engineer Magazine* is presented to each of the six winners. When two or more competing plants have had injury-free records for the year, their ranking is determined by the number of man-hours worked.

In addition to the bronze trophy, a Sentinels of Safety flag, also donated by *The Explosives Engineer*, is awarded to each winner.

As a tribute to and in recognition of their part in making the best safety records among contestants, each employee and official at the winning plant is presented a Certificate of Achievement in Safety by the Bureau of Mines.

The certificates testify to the fact that the Sentinels of Safety trophy and flag could not have been won without the complete cooperation of each worker and supervisor. The certificates are also awarded to the next four ranking plants after the winner

and to plants that had no disabling injuries during the year, provided 30,000 or more man-hours were worked.

The records of the following operations won top honors in the 1953 competition:

Anthracite underground mines: Coal Brook mine, The Hudson Coal Company at Carbondale, Pa.

Bituminous-coal underground mines: Hanna No. 4-A mine, The Union Pacific Coal Company at Hanna, Wyo.

Metal underground mines: Calloway-Mary mine, Tennessee Copper Company at Ducktown, Tenn.

Nonmetallic underground mines: Anandale mine, Michigan Limestone Division, United States Steel Corp. at Boyers, Pa.

Open-pit mines: Mahoning mine, Pickands Mather & Company (Mahoning Ore and Steel Company) at Hibbing, Minn.

Quarries: Alpena quarry, Wyandotte Chemicals Company at Alpena, Mich.

As judged from past records, the injury experience in 1953 was the lowest on record, and roughly 50 per cent lower than the average over the 29 years of the contest. The average competition frequency rate, from 1925 through

last year, was 44.956, compared with last year's frequency experience of 22.22. The 1953 severity rate, also an all-time contest low, was 4.039, compared with the 29-year contest average of 7.862.

Since 1925, the contest has had a progressive effect in the promotion of accident-prevention work in mines and quarries throughout the country. Operations participating are grouped into six classifications: Anthracite underground mines, bituminous-coal underground mines, metal underground mines, nonmetallic underground mines, open-pit mines, and quarries. The five mines and one quarry having the lowest injury-severity rates, or the number of days lost through disabling injuries for each 1,000 man-hours, are the winners in their groups.

The 1953 Committee of Award members were: Ned H. Dearborn, president, National Safety Council; Leo F. Reinartz, president, American Institute of Mining and Metallurgical Engineers; L. C. Campbell, president, National Coal Association; Charles Ferguson, director, Safety Division, United Mine Workers of America; Howard I. Young, president, American Mining Congress; A. T. Goldbeck, engineering director, National Crushed Stone Association, Inc.; and C. D. Franks, president, Portland Cement Association.

"Kud B. You" Is The Plant Fall Guy

ON MARCH 15, 1954, the American Cast Iron Pipe Company, Birmingham, Ala., hired a new "employee." He has been involved in numerous "accidents" but the company doesn't mind. The reason—the employee, "Kud B. You," is a dummy—a store window mannequin. He is used to illustrate the consequences of unsafe acts on the job.

The antics of "Kud" are played up in the plant magazine, *Acipco News*, and have become a popular feature. The company reports "Kud" has created an added interest in safety throughout the plant. In 1947, Acipco had 54 accidents with a frequency rate



of 13.8. Last year, accidents were cut to 23 with a frequency rate of 5.0.



The Food Processing Industry. Throughout the plant—from the “kitchen” to the shipping department—these handy Scott Wipers are enabling employees to do a cleaner, more efficient job.



The Industrial Bearing Industry. Here's where you need a rugged wiper. One that can be used in solvents—and used again. That's the Scott Industrial Wiper—strong, two-ply and absorbent.



The Aircraft Industry requires a mobile source of oil-absorbing wiping material. Wipers have to be strong for heavy work, soft enough for polishing fine metals.

Scott Industrial Wipers—another Scott product that is changing America's way of doing things.

A big job in any industry

Designed to meet a human need, Scott Industrial Wipers bring a new standard of safety and efficiency to industrial wiping.

Industrial Wiping—the cleaning away of excess grease, dirt, and filings—can now be a scientific step in production—measurable in cost, safety and efficiency.

Scott Wipers are made of a strong, two-ply, “perf-embossed” paper. Soft, absorbent, yet strong... even when soaked in industrial solvents.

A Scott man stands ready to demonstrate these versatile Scott Industrial Wipers in your plant. Simply mail the coupon below or contact your local Scott Distributor.

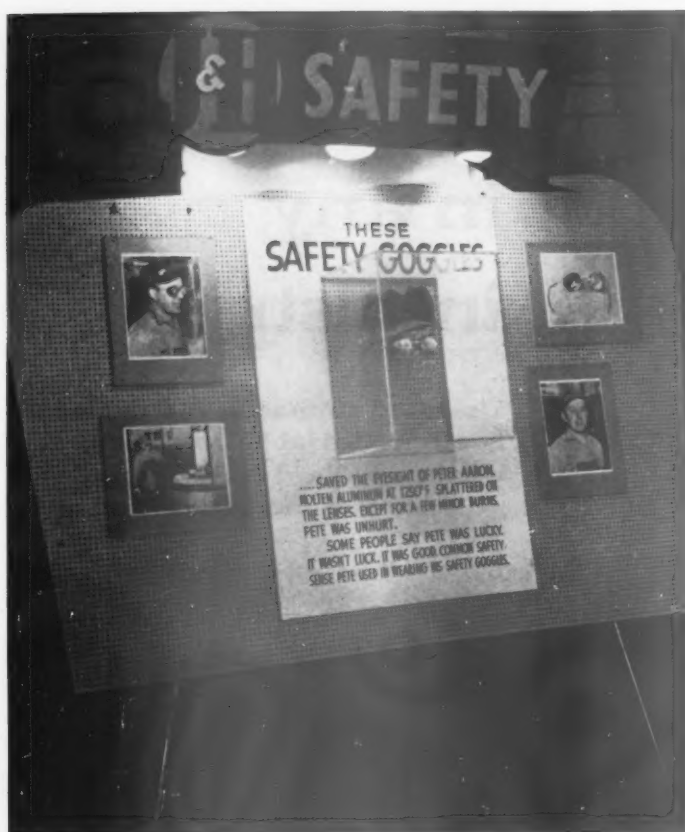


Hands of Production, your most important tools, are protected by disposable Scott Wipers. Harmful metal filings are thrown away along with the used wiper.



Scott Paper Company,
Dept. NS-G, Chester, Pa.
Please send me full information on
Scott Industrial Wipers.

Name _____
Company _____
Address _____
City _____ State _____



Molten Metal Miracle

The next victim might not be so lucky

TO all who saw the accident, and particularly to Peter Aaron—the man to whom it happened—it was a miracle.

Pete is a melter at Jack & Heintz, a Cleveland, Ohio concern making special electrical devices for aircraft. On this particular afternoon, as on many an other, Pete finished his lunch and went over to the die casting department to relieve one of the melters.

There is nothing particularly unusual nor hazardous about the Jack & Heintz die casting department. Like any other in industry, it is an unglamorous, industrious place where men pour molten metal into dies, apply pressure and take from the press the finished casting. As in any other plant area, the men take standard safety precautions.

Pete put on his safety goggles and his gloves. He picked up the ladle which was sitting on the cauldron, and dipped the ladle into the molten aluminum.

And then it happened. As Pete put it:

"Just as soon as my ladle hit the aluminum, there was a sharp crack. I blinked for a split second, and when I opened my eyes, I couldn't see a thing. Everything was dark."

What had happened was this: the molten aluminum (1250 F) exploded. Ordinarily, such an explosion would have easily bathed a workman's head and shoulders and caused death. But, in this case, for no explainable reason—the molten aluminum changed its habit. Instead of a bath, the explosion shot twin streams out of

the cauldron, unerringly, at Pete's goggles. The aluminum formed a solid half-inch coating on the outside of the goggles and dripped over to cover the inside of the goggle lenses.

Miraculously, the aluminum did not splash anywhere on Pete's face. Except for a few very minor burns caused by the rapid heating of the goggle frame and bows, Pete was unhurt . . . in fact, back on the job.

Workers, plant engineers, plant paper reporters and photographers, everyone within the area came to look at Aaron and his goggles . . . and to hear him recount the happening.

Plant engineers were there to determine what caused the accident. These technical men were happy to learn that Pete was unhurt—not only from the standpoint of human sentiment—but also because they are jealously protecting an outstanding record of safety at Jack & Heintz—more than 8,000,000 man-hours without a disabling injury.

To make certain such an accident would not happen again, for most certainly another person would not be so fortunate, the safety engineers investigated thoroughly.

Nothing appeared out of kilter. Only theories could be projected. The one which seems the most logical is this:

Melters go through a special ritual with ladles before dipping them into molten metal. They first dip the ladle in a lime solution—this prevents metal from adhering to the ladle cup. The ladle is then dried and heated so that its temperature is close to that of the molten metal—to prevent any shock that a wide difference in temperatures would bring about.

The theory is that Pete's ladle was not completely dry . . . that some of the lime solution had not evaporated. It was this very minute moisture—Pete had examined the ladle before using and had noticed none—that sparked the explosion.

* * *

Today, Pete's goggles are on display at the plant as a "silent sermon" on safety goggles.

"PLEASE HELP ME. MY HUSBAND IS VERY ILL."

Out of the Night Came a Call for Help

Quick action of alert telephone operator helps save man with heart attack

It was about two o'clock of an August morning when the call flashed on the switchboard. A woman, in an excited voice, asked to be connected with a doctor.

Mrs. Carolyn F. Gross, the night operator, rang the doctor's home immediately but he was unavailable. Sensing a critical emergency, she asked if she could be of help in getting another doctor.

"Oh, please do everything you can," implored the caller. "My hus-



AWARDED VAIL MEDAL. Mrs. Carolyn F. Gross, night operator in Berlin, N. J. Awarded Vail Medal for "initiative and resourcefulness" in answering an emergency call. Vail Medals, accompanied by cash awards, are given annually by the Bell System for acts of noteworthy public service by telephone employees throughout the country.

band has had a heart attack and is very ill."

Mrs. Gross rang a doctor who had helped in a previous emergency. Then, realizing he was new in the area, she arranged to have the State Police meet him at a certain point and lead him to the house.

Shortly after, the subscriber's daughter called to ask for oxygen.

"It's on the way," said Mrs. Gross.

"I thought you might need it so I telephoned the emergency ambulance service. They ought to be there any minute."

Just before she went off duty, Mrs. Gross called to ask how the sick man was doing and if there was anything else she could do.

"You've already done so much," said a grateful voice. "The doctor says that it's only because of your help that my husband is alive."



POLICE ESCORT. To help the doctor get there faster, the operator arranged for the State Police to escort him to the sick man's home.

EVER READY . . . EVER HELPFUL. Day or night, rain or shine, the telephone stands ready to help you—in the everyday affairs of life as well as emergencies. This swift, willing worker will run your errands, guard your home, save countless steps and valuable time and keep you in touch with relatives and friends. In office and home, these oft-repeated words reveal its value—"I don't know what I'd do without the telephone."

BELL TELEPHONE SYSTEM



The Record's Good — But They're Not Resting



The plaque that will travel from plant to plant as an emblem of top safety performance by A. O. Smith Corp. divisions. L. B. Smith, president, and E. C. Woodward, corporation safety director, are shown holding the plaque while in the rear stand C. E. Wooliever, vice-president for industrial relations; George P. Hough, general manager of the Permaglas Division at Kankakee, Ill., and Herbert Watkins, personnel manager, Airframe Division at Rochester, N. Y.

WHILE the safety program is getting results is the best time to intensify the activities—not when the record begins to slump.

That is the reasoning behind the drive now being conducted by the A. O. Smith Corp. During the first week in August all division managers and personnel men were called to Milwaukee to draft plans.

Right now A. O. Smith is enjoying the lowest incidence of accidents in its 80-year history, with both frequency and severity rates well below the average for steel product manufacturers.

E. C. Woodward, corporation safety director and long a leader in state and national safety programs, told division managers their job of improving the company's safety position would take concentrated effort.

Instead of resting on its gratifying laurels, the corporation issued

a statement of policy regarding safety by President L. B. Smith and announced that it would put into circulation a bronze plaque to be known as the "President's Accident Prevention Trophy."

The policy stated in part:

"When a man enters the employ of A. O. Smith Corp., he has a right to expect that he will be provided with a proper place in which to work, proper machines and tools with which to do his job, and that he will be able to devote his energies to his work without danger to his life and health.

"Only under such circumstances can the association between employee and employer be mutually profitable and harmonious."

To be awarded for the first time at the end of 1954, the Accident Prevention Trophy annually will rest with the division or company activity showing the best safety

record, and will be surrendered only to a division posting a better record.

An improved system of report forms which is designed to keep both division managers and the A. O. Smith safety director more accurately informed of the progress of accident prevention in the corporation goes into operation at once.

Addressing the staff group, President Smith said corporations are too prone to reckon assets in terms of cash, buildings and equipment. He urged that human resources be placed first on any such list, and that safeguarding of the life and health of employees be a primary consideration of all plant and division managers.

That there is a very logical connection between A. O. Smith's drive for lower costs and better quality and its push for ever safer operations was pointed out by C. E. Wooliever, vice-president for industrial relations.

"Accident prevention is another indication of efficient management," Mr. Wooliever stated. "You might well call it an index of good management."

"With the mounting workmen's compensation and medical costs, plant accidents create inefficiencies which industry today cannot afford. Efforts to cut this toll are very timely with industry in its present economic competitive position."

Golden Anniversary of Mine Safety Program

The 50th anniversary of the founding of its safety program was celebrated by Philadelphia and Reading Coal Company at Pottsville, Pa., on August 14 with an intra-company first-aid contest. This is believed to be the oldest continuous safety program in the country.

J. J. Forbes, director, U. S. Bureau of Mines, presented Certificates of Honor of the Joseph A. Holmes Safety Association to three P & R operations for safety achievements. Gordon E. Smith, Deputy Secretary of Mines, extended the greetings of the State. Edward G. Fox, P & R president, presented the prize awards.



LET'S START WITH THE CAUSES OF *DERMATITIS*

Costly dermatitis can be prevented. By getting at the basic causes. We can help you by analyzing the work your employees do, checking for hazards our experience tells us might cause dermatitis. We'll check the care given their hands. Then we'll compare your present protective treatments with the skin care methods we've found to be best during our many years of controlling industrial dermatitis.

Where it is necessary, we offer consultation with specialists. Complete chemical and bacteriological analysis.

After these preliminaries we can help you set up a *continuing program* for dermatitis control. Provide leaflets and posters to help educate employees. Assist you in choosing the particular products from West's broad line that will best apply to your situation. At the right are a few examples.



West's broad line of products includes not only cleaners, soaps, and protective creams but also washroom service . . . disinfectants . . . deodorants . . . insecticides . . . floor maintenance materials. West is also the exclusive distributor of Kotex Sanitary Napkins sold through vending machines.

42-16 West Street, Long Island City 1, N. Y.

National Safety News, September, 1954



Let's see how **WEST products** control dermatitis

West's complete line of sanitation products includes hand cleaners, protective creams, antiseptic soaps and protective garments. Everything you need for effective control of dermatitis. Here are a few of them.

LAN-O-KLEEN



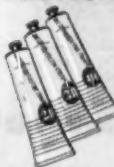
Is a heavy duty powdered hand cleaner. Contains a relatively high percentage of "free" lanolin, the emollient lecithin, soap, and a secret process in a fine corn meal base. Provides both super-fattening and effective cleaning.

ANTISEPTIC SULPHO HAND CLEANER



contains bacteriostatic properties. Will not defat the skin. Excellent skin cleaner even for sensitive hands. Offers protection against many harsh chemicals and other materials used by people in industry and institutions.

ANTISEPTIC PROTECTIVE CREAMS



contain bacteriostatic properties. Formulated to provide protection against almost every occupational hazard. Used by thousands of workers throughout the United States and in Canada.

WANT DETAILS?

*Tear out this coupon and
mail with your letterhead*

Dept. 7

I'm interested in:

☐ A FREE booklet packed with information on dermatitis and helpful tips on skin care.

☐ A talk with a West specialist about my dermatitis problem. No sales pitch. No obligation. Just discussion, a look at samples, and a demonstration if I want it.



Stop Athlete's Foot the Logical Way...

Build **RESISTANCE** to fungus attack!

The main cause of Athlete's Foot is the modern shoe (USPHS Bul. R-674). Shoes soften and devitalize the skin. Fungus spores—which are everywhere—thrive on this weak skin.

The best way to fight Athlete's Foot is to stop trying to kill the fungus. Concentrate instead on restoring the skin's resistance to fungus attack. (Report of 91 Skin Specialists, Archives of Dermatology and Syphilology, April, 1942.)

ONOX Skin-Toughener does that!
SAFE • SANITARY • EFFECTIVE
Nothing to get out of order



Fungus Spores Thrive on Shoe-Softened Skin



Onox Sponge Forces Onox Up Between Toes Where Most Needed

The Onox sponge forces Onox up between the toes where it is most needed. Daily use of an Onox saturated mat makes it safe to walk bare-foot anywhere. No danger of reinfection. Fungus spores can't grow in Onox and can't grow on a skin regularly toughened with Onox. Average cost is only 1c per man per week.

Workers prefer Onox to other methods. They know Onox clears and prevents Athlete's Foot the logical way.



Used by over **70%** of the largest manufacturers

Remember . . .

Onox is a SKIN TOUGHENER. Instead of trying to kill the fungus, Onox restores the skin's natural resistance to fungus attack. Result—healthier feet, happier, more productive workers.

Try **ONOX** on a 60-day test **NOW!**

Order enough Onox and footmats for 60 days use. You pay nothing unless fully satisfied.

For full details, write



Head Office: 125 Second Street,
San Francisco 5, Calif.
Warehouses: Brooklyn, Cleveland,
New Orleans, Hawthorne, Calif.

Originators of the skin-toughening method of Athlete's Foot Prevention

Develop Work Kit for Lift Truck Study

A METHOD for predetermining the times necessary for fork lift trucks to perform specific operations has been provided in a work kit which will enable plants to apply fork lift truck standard performance data. Developed through a joint project by the Wharton School of the University of Pennsylvania and The Yale & Towne Manufacturing Company, the study can assist materially in determining the efficiency of fork lift trucks now in use as well as planning for future needs.

Included in the kits, available without cost from the Yale & Towne Manufacturing Company, Philadelphia, Pa., are typical materials handling examples to demonstrate the standard technique for application of the data as well as charts that provide times for the basic truck motion elements. Also included in each kit are work sheets which can be used in the evaluation of standard performance times for specific operations.

More than two years were spent in completing the initial phase of this study based on the performance of a 4000-pound electric fork lift truck under varying operating conditions. Data developed from this study has been divided into two major sections—Basic Time Values and Variable Factors.

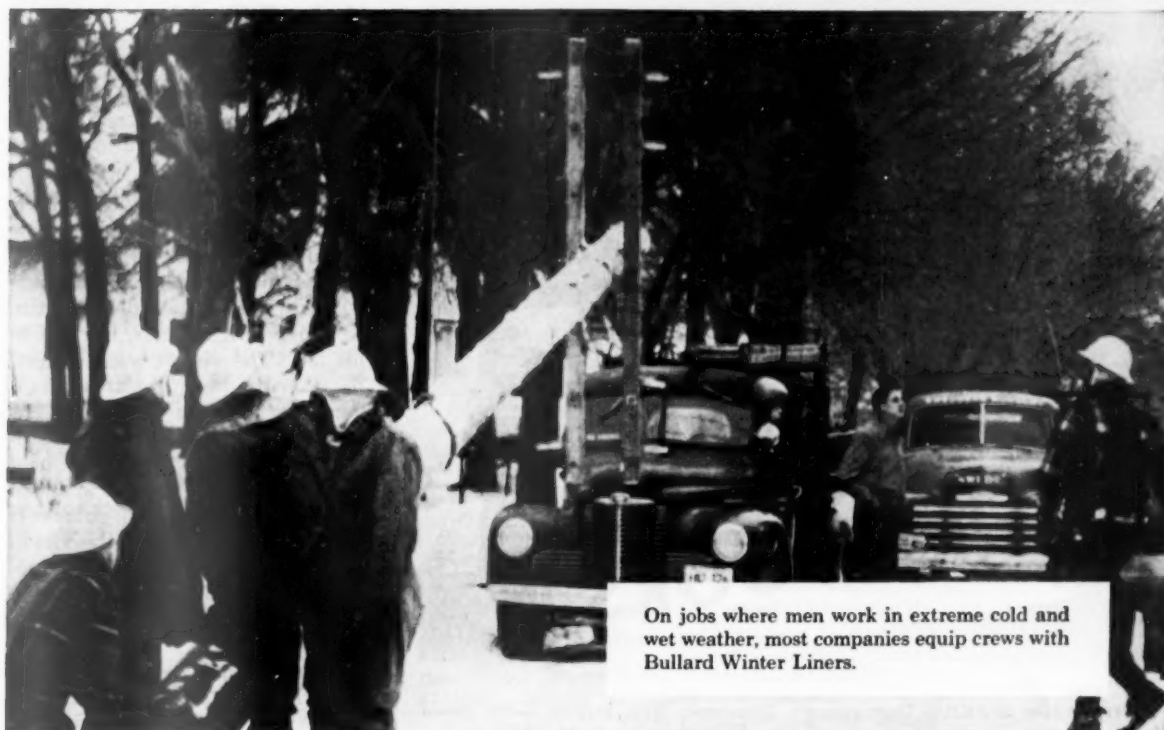
The basic time values cover such operations as forward motion, backward motion, turning, lifting and stacking under ideal operating conditions.

The variable factors provide for the evaluation of deviation from the basic times which result from actual operating conditions. Variable factors include items such as skill of operator, width of aisle, lighting, weather, floor and traffic conditions.

There may be a destiny that shapes our ends, but our middles are of our own chewing.

Prejudice is a loose idea tightly held.

SUB-ZERO CONDITIONS – WARM WEATHER COMFORT



On jobs where men work in extreme cold and wet weather, most companies equip crews with Bullard Winter Liners.

BULLARD WINTER LINERS

5 types for all safety hard hats and caps



CAT. NO. 70-EL-33,
MED. OR LARGE

Rugged, wind resistant and water repellent outside fabric with fleece or wool interior. Specify fleece or wool lining.



CAT. NO. 70-EL-38,
MED. OR LARGE



CAT. NO. 70-WL-2K

Wool knitted caps in two styles: as snug, close fitting skull cap, or as elastic knit skaters' type that covers neck and ears.



CAT. NO. 70-WL-1K



Fabric and knit combination assures extra warmth and wind protection for ears, neck, head, and forehead.



CAT. NO.
70-WL-3K

Arctic type liner, all wool knit. Protects head and face. Front slips down over mouth.

UNIVERSAL SIZE

Fits all safety hats and caps

Fabric liner snaps over leather or leatherette sweatband, holding hat or cap firmly in place, maintaining full margin of safety protection.

Write for name and location of distributors in your area

**EVERYTHING
BULLARD
IN SAFETY**

T.M. REG. U.S. PAT. OFF.

E. D. BULLARD COMPANY

275 EIGHTH STREET • SAN FRANCISCO, CALIFORNIA
SINCE 1898



QUESTION: How do AKBAR Doors protect in case of fire?

Answer: They automatically block the opening with a curtain of steel.

QUESTION: How does this help?

Answer: It cuts off flame-spreading drafts, confines damage to the area in which fire starts.

QUESTION: Are the doors sure to work right if fire does occur?

Answer: Yes. The instant heat releases a fusible link mechanism, a strong starting spring gives AKBAR Rolling Fire Doors a positive downward push.

QUESTION: But what if someone is passing through the opening when the door is released?

Answer: A special device controls the downward speed of the doors, giving ample time to avoid danger.

QUESTION: What if the door closes before occupants pass through?

Answer: Kinnear AKBAR Doors can be raised quickly after automatic closure for any emergency need, because the torsion-spring counterbalance is not disengaged when the curtain is released.

QUESTION: What happens if fire should weaken or burn out the door sill?

Answer: A special Kinnear device stops the door positively when it reaches floor level. It will not sag or drop through, no matter what condition the sill is in.

QUESTION: How big can the doors be?

Answer: In addition to the extensive range of sizes listed by the Underwriters' Laboratories, Inc., Kinnear makes steel rolling doors with these same approved fire-safety features in any practical size.

QUESTION: How much extra space is needed for these fire doors?

Answer: Little or none. They can be mounted with the interlocking steel slat curtain flush with wall. When not in use, the doors are coiled compactly above the opening—often completely hidden from view.

QUESTION: Can the doors be used for regular daily service?

Answer: Yes—with motor operation too, if desired. But where extra fire protection is not needed, regular non-labeled Kinnear Steel Rolling Doors are recommended.

Write or call for full details on:

Kinnear Rolling Fire Doors

The Famous AKBAR Fire Doors, made only by

The KINNEAR Mfg. Co.

Factories:

1720-40 Fields Ave., Columbus 16, Ohio
1742 Yosemite Ave., San Francisco 24, Calif.
Offices and Agents in All Principal Cities



KINNEAR
ROLLING DOORS

Resuscitation Under Difficulties

RESUSCITATION under unusual and trying circumstances recently saved the life of Charles Rounds, a lineman for the Eastern Shore Public Service Company of Maryland.

Rounds was working on a 12 kv. substation bay, astride a narrow I beam—15 feet above the ground—when he backed into an energized bus. Edward Hoffman, working with Rounds, hurried to his aid. The victim was slumped back on the beam, balanced dangerously on one shoulder. His clothing was in flames and breathing had stopped. Hoffman beat out the fire, and applied artificial respiration, supporting himself and the dead weight of the victim with one hand, improvising a one-handed version of the Oesterreich pole-top method—pressing below the victim's ribs.

When Rounds resumed breathing, Hoffman applied back pressure arm lift respiration for five minutes, on the ground. Rounds was breathing normally when the ambulance arrived. He was taken to a nearby hospital, to be treated for shock, and multiple burns about the right shoulder (contact point) chest and the inside of both legs.

For his heroic effort, and presence of mind, Edward Hoffman was awarded the Edison Electric Institute Medal. A fellow crew member, Monroe Whaley, received a Certificate of Assistance for his quick response to the situation in summoning help and for his personal aid.

Electronic-Eye Canes

The U.S. Signal Corps is working on a white cane that emits a light beam, the National Patent Council reports. When the beam is intercepted, the blind person using the cane feels a tingle in the handle warning him of an obstruction ahead. A similar cane has also been developed at M.I.T. A strong low frequency vibration warns of a curb.

The man who rolls up his sleeves seldom loses his shirt.

Illinois Surveys Safety Act

GEORGE HARPER, associate professor of mechanical engineering at the University of Illinois and a well-known member of the American Society of Safety Engineers, has accepted an appointment as advisor to the special Workmen's Safety Commission. The Commission, which was created by the Illinois State Legislature under HB No. 547, is expected to come up with recommendations leading to a report on ways and means of improving the Illinois occupational safety record.

The Commission consists of 15 members: five state senators, appointed by the President of the Senate; five representatives, appointed by the Speaker of the House; and five public members appointed by the Governor. Illinois chapters of ASSE, Illinois Manufacturers Association, insurance and labor groups are watching the development of the program with a great deal of interest.

Following are some excerpts from the bill under which the Commission was created:

Sec. 3. The Commission shall have the following powers and duties:

1. Investigate the feasibility of establishing and the best method of conducting employer safety education programs designed to educate and instruct employees as to any hazard that may exist in factories and other commercial establishments and in methods and means of preventing accidents and injuries in connection with or in relation to their employment;

2. Investigate any other matter incident to or pertinent to the subject of industrial safety or industrial safety education.

Sec. 7. The Commission shall report its findings and recommendations to the 69th General Assembly not later than March 1, 1955, and the report may be accompanied by such drafts of proposed legislation as the Commission deems necessary to accomplish its recommendations.

Sec. 8. Appropriation—\$25,000.

Professor Harper is canvassing all interested groups to get their opinions on such matters as training of state factory inspectors, need for additional state codes, effectiveness of local safety councils and establishment of ex-

LEGGE FIGHTS 4 O'CLOCK FATIGUE!



Safety Engineers discover mysterious culprit contributing to afternoon letdown

Don't blame your employees if they become droopy around 4 o'clock. Laziness has nothing to do with it.

A survey by LEGGE Safety Engineers shows that *slippery floors* contribute heavily to afternoon fatigue.

The survey discloses that personnel—to avoid slipping—develop a stiff-legged walking gait on slippery floors. This strains the muscles and produces fatigue. Not only does the worker's output suffer, but he becomes accident prone.

PRODUCTION GOES UP — ACCIDENTS GO DOWN WITH LEGGE SAFETY FLOOR POLISHES

This added working efficiency should be reason enough to switch to LEGGE Safety maintenance. But if you need more reasons, consider these:

Up to 98% reduction in slip-accidents because the coefficient of friction in LEGGE Polishes goes up to 75% beyond U. L. requirements for slip-resistance.

Savings up to 25% in materials and 50% in labor because LEGGE Polishes stay on the floor longer, do away with constant stripping and repolishing.

Start now to enjoy the only complete maintenance system that gives you Safety, long-lasting lustre and economy. You get all this *plus* the Free services of a LEGGE Safety Engineer. Clip coupon today.

WALTER G. LEGGE COMPANY, INC.

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cities. In Toronto—J. W.
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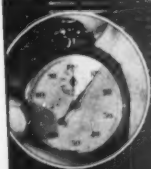
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... PUTS OUT MORE FIRE FASTER with
LESS LIQUID and PREVENTS FLASHBACK!

HERE'S PROOF!
ROARING TEST FIRE
OUT...in
11 SECONDS!

*Exclusive Chemical Liquid . . .
available only in Fyr-Fyter Loaded
Stream INSTANT Extinguishers.

This raging inferno, with flames
shooting 20 feet in the air, is an
Underwriters' test fire in a 100
square feet pine panel.



When fire is highest, INSTANT'S
KARBALLOY LOADED STREAM is
aimed at fire. The roaring blaze
was killed in record time . . . 11
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This test fire is conclusive proof of
Instant superiority! Karballoy, the ex-
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neers now prominent in atomic re-
search, killed the fire in one-third time
required by ordinary extinguishers . . .
and only two quarts of liquid was
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extinguishes . . . preventing flashback
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tible materials that start up again after
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Fyr-Fyter Instant's are designed to
stop the most prevalent fires in wood,
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combustibles. They require no re-
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☐ Send full details on Fyr-Fyter
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Let's talk it over. No obligation.

DEPT. 20

FF-3

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ices.

Safety agencies in other states
as well as the staffs of the Na-
tional Safety Council, Greater
Chicago Safety Council, and other
safety groups are cooperating in
every possible way.

Eye Care Reminder

Several times a day employees
of Nicholson File Company, Prov-
idence, R.I., are reminded to get
skilled help when they get some-
thing in their eyes. This notice is
attached with transparent tape to
every mirror in the plant:

If you want to see how you look,
USE THIS MIRROR.

If there is something in your
eye, SEE THE NURSE.

Every time an employee stops
in front of a mirror—in the wash-
room or on a vending machine, he
gets this reminder. Orville Cap-
pell, a supervisor in the supply
department, gets credit for the
idea.

COMING EVENTS



Sept. 14-16, Cleveland, Ohio

Sixteenth Annual Ohio State Safety
Conference and Exhibit (Hotel Carter).
Carl L. Smith, executive secretary, 2073
East Ninth St., Cleveland 15, Ohio.

Sept. 15-16, Hartford, Conn.

American Gas Association, Sixth An-
nual Accident Prevention Conference
(Bond Hotel). James M. Beall, direc-
tor, Public Information Bureau, Amer-
ican Gas Association, 420 Lexington
Ave., New York 20.

Sept. 16-17, York Harbor, Me.

Twenty-Seventh Annual Maine State
Safety Conference (Marshall House).
A. F. Minchin, secretary, Maine State
Safety Conference, Department of
Labor and Industry, Augusta, Maine.

Oct. 5-7, Louisville, Ky.

Greater Louisville Safety Conference
and Exhibit (Kentucky Hotel). Estel

Hack, executive vice president, Speed Bldg., Louisville 2, Ky.

Oct. 18-22, Chicago

42nd National Safety Congress and Exposition (Conrad Hilton Hotel). R. L. Forney, general secretary, National Safety Council, 425 N. Michigan Ave., Chicago 11.

Nov. 18-19, Portland, Ore.

Sixth Annual Governor's Industrial Safety Conference (Masonic Temple). Leonard A. Weston, director, Accident Prevention Division, State Industrial Accident Commission, Public Service Building, Salem, Oregon.

Nov. 18-19, Spartanburg, S. C.

Seventeenth Annual South Carolina Statewide Accident Prevention Conference (Spartanburg Memorial Auditorium and Wofford College). J. D. Watson, Jr., safety engineer, South Carolina Industrial Commission, Columbia, S. C.

Dec. 8-9, Harrisburg, Pa.

Pennsylvania Department of Labor and Industry Annual Industrial Safety Conference (State Capitol and Penn Harris Hotel). No exhibits. Frank K. Beal, deputy secretary, conference chairman.

Feb. 27-Mar. 1, New Orleans

Southern Safety Conference and Exposition. (Jung Hotel). W. L. Groth, executive director, P. O. Box 8927, Richmond 25, Va.

March 29-31, Pittsburgh, Pa.

Thirtieth Annual Western Pennsylvania Safety Engineering Conference and Exhibit (Hotel William Penn). Harry H. Brainerd, executive manager, 605 Park Bldg., Pittsburgh 22, Pa.

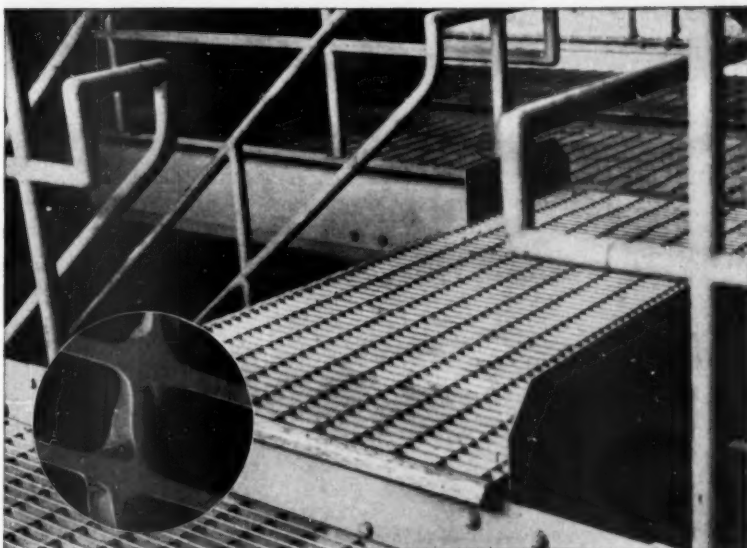
Apr. 26-28, Cleveland, O.

Twenty-fifth All Ohio Safety Congress and Exhibit. (Hotels Cleveland and Hollenden). A. W. Moon, congress manager, Industrial Commission of Ohio, Columbus 15, Ohio.

Study Air Pollution In New York Cities

AIR POLLUTION is a health menace of major or moderate proportions in 52 out of 197 larger communities of the State, Arthur C. Stern, Chief of the Engineering Unit, Division of Industrial Hygiene, State Labor Department, told the Joint Legislative Committee on Natural Resources.

Mr. Stern presented the findings of a survey made under his direction at the Exploratory Conference on Intra-State Air Pollution Problems, held under the auspices of the Joint Committee at Albany. The survey not only



Grating by BLAW-KNOX

where do you need steel grating?

There must be lots of places where you are now using grating—floors, platforms, walkways, catwalks and stair treads, for example.

But how about other uses—such as some sturdy shelving or a fan guard—or for covering a dangerous open pit or a light well. Take a good look around your plant and you'll probably come up with several jobs, including perhaps a new use, as steel grating is adaptable to many applications.

Any time you want some help on a job related to grating, we'll be glad to hear from you.

Only BLAW-KNOX Electroforged® Steel Grating and Stair Treads

—have these five exclusive features:



1. rigid one-piece construction—easy to install
2. all surfaces accessible—easy to paint
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A short note will bring you a copy of new Bulletin No. 2365-R
—a dimensional sketch will bring you a quotation.



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GRATING APPLICATIONS: floors • platforms • walkways • catwalks • stair treads • fan guards • shelving • and many other uses, both outdoors and indoors, for versatile steel grating.

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Herc-Alloy
here...

for
greater safety
here...

DANGER ZONE

SPECIFY
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SLING CHAINS



Write
for Data
Book

HERC-ALLOY

Sling Chains are made-up to order, are individually tested, registered and guaranteed.

Hundreds of plants like the one shown above* are using Herc-Alloy Sling Chains. Greater safety is their big reason for doing it. But there are other factors too. Herc-Alloy is economical because of its long service life. Then too, the use of alloy steel permits a weight reduction that helps prevent worker fatigue. These advantages are worth thinking about. Those who do consider them seriously generally adopt safe Herc-Alloy Sling Chains for their plants.

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covered cities and villages over 5,000 population, excluding New York City, but also towns with that many or more people living outside incorporated communities.

"In the 197 communities comprising the (study) group, air pollution was adjudged to be nil in 84; minor in 61; moderate in 44 and major in eight," said Mr. Stern.

"In only two of the 52 municipalities recognizing the problem as moderate or major are the principal sources non-industrial. In only 61 of the 197 communities are the smoke or odor problems associated with private homes, apartment houses or apartment house incinerators.

"It is axiomatic," Mr. Stern told the conference, "that in cities of over 100,000, the large concentration of dwellings creates a residential smoke problem. Under conditions existing in New York State, as the size of communities decreases below 100,000 so does their potential residential smoke problem, to the extent that it becomes nil in most moderate and small size communities.

"Industrial air pollution can occur in the very smallest of communities. It takes only one isolated factory building and an adjacent employees' parking lot or farmers' pasture to have the basic elements for an air pollution problem—a source of injurious emission and something which it can injure on contact.

"If the finish of the parked cars is ruined or the cattle eating contaminated forage are made ill, there is a problem regardless of the size of the community and the proximity or lack of proximity of residences."

Mine Safety

—From page 72

By the use of eye-protection, the Americans had cut down eye injuries a great deal. Ear defenders were less used, even though the problem of noise in U.S. industry is a tremendous one, he said. "Large investigations are in progress, particularly with regard to compensation," he added. "If you have an injured

ear drum you may still be fit for work. But it is not so good when you go home and turn on the radio!"

Radio Frequency Risks

There was one problem in which Hagerman had been particularly interested—the danger of premature detonation of charges by lightning, radio frequency energies, and so forth. In Sweden there had been a few serious accidents of this type.

In France an apparatus had been developed "to know when lightning is coming, from a distance." The French also have developed interesting measures against "stray currents." (Stray currents, leaking out from electric locomotives, through the rails and into iron mines, could explode electric detonators.)

The French also have special arrangements against radio frequency detonations.

He found the Canadians have made investigations into radio frequency risks. In the U.S., a blaster's handbook has been published giving minimum distances over which there was danger of radio waves setting off premature explosions. These distances ranged up to eight kilometers for the largest transmitters.

Hagerman thinks the answer to the problem may lie in non-electrical "short delay blasting" in use in Germany and the United States. It is done with specially devised connectors and obviates both the use of the old fashioned fuse and the modern electrical detonators.

Fire-Retardant Coatings

—From page 39

retardant coating must take the form of heat insulating media and must prevent steel surfaces from absorbing heat at a high rate.

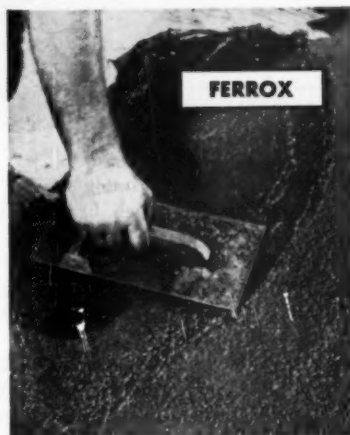
Fire retardant coatings are recommended for interior application on all metals and all combustible surfaces, such as wood, fibreboard, plywood, acoustical tile, etc. A fire retardant coating carrying an Underwriters' Laboratories listing is now being used by Western railroads on switch and fuse boxes in passenger cars;



Slips are costly...

BUT FERROX ISN'T

A few dollars worth of Ferrox underfoot would have prevented this painful, costly accident. Ferrox makes it easy—and inexpensive—to have safe footing on all walking surfaces, wet or dry. It can be troweled over wood, concrete or metal . . . sticks tight . . . resists oil, chemicals and weather conditions. One gallon covers approximately 40 square feet applied in two thin (1/32") coats.



Check Your Safety Requirements Now

Why not take a walk through your plant right now (and be careful!) to see how many places where Ferrox surfacing would reduce your accident risk. Machine areas, especially, need Ferrox for safe footing. So do stairways, walkways and ramps, shower stalls, washrooms, loading platforms and numerous other locations. Remember—slips are costly, but Ferrox isn't. Write to Dept. 21 for Ferrox bulletin.

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Let ALGRIP stop slipping accidents in your plant once and for all. It will pay for itself in savings on insurance premiums. Mail this handy coupon today for full details without cost or obligation.

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electrical panel boards; the interior walls of diesels; in storage rooms housing files, filing cabinets, important documents and records; wood locker rooms; wood and plywood office partition walls.

The first five minutes at a blaze are worth the next five hours. Fire should be fought at the drawing board instead of depending entirely on the hydrant.

Wire Rope

—From page 31

This makes the sling easy to handle and increases service life.

While the use of blocking, bagging, or other protective devices is recommended to secure maximum service, braided slings do not require them except on sharp cutting edges because the braided body has a tendency to flatten and spread so that four to six ropes engage the load with a gripping action, like the fingers of a human hand.

To secure maximum service and safety, slings must be used correctly. The user must be familiar with the characteristics of the sling and its behavior under different conditions.

Particular attention should be given to the strength of the sling after fabrication, rather than the strength of the wire rope used to make it. Manufacturers publish ultimate strengths and safe working loads for slings, and these ultimate strengths apply to properly spliced or socketed connections. They do not apply to all types of fastenings.

For example, a socket properly attached by the hot zinc method which is the only method recommended by wire rope manufacturers that will consistently develop 100 per cent of the rope strength.

The efficiency of properly made splices varies with the size of the rope. On rope up to 3/4 in. diameter the splice is approximately 95 per cent efficient, while a similar splice in a 2 in. diameter rope will develop about 75 per cent of the rope strength.

Wire rope clips will develop about 80 per cent of the rope strength provided the clips are properly applied and the recom-

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INCREASED PROPERTY PROTECTION
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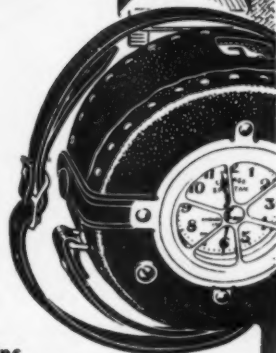
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GOLD MEDAL SAFETY PLATFORM LADDER

Here is a ladder that will cut accidents in your plant as no other ladder can. That's because it's the *safest step ladder ever made*. It speeds work too—the 14" x 19" platform builds confidence, enables men to work in any direction safely; the rung back supports a helper.

Tested and approved by Underwriters' Laboratories, Inc. Conforms to ASA and all local safety codes.

"GOLD MEDAL" LADDERS FOR EVERY PURPOSE

Single, Step and Extension ladders of all types and sizes. Wood or magnesium. Highest quality for long life and incomparable safety.

FOR FULL INFORMATION WRITE TODAY FOR CATALOG L-71.

National Safety News, September, 1954



For Greater Safety...Efficiency...Economy

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Specialists in Floor Safety Absorbents



A burning cigarette has no effect whatsoever on an oil-soaked pile of ZORBALL!

Wyandotte ZORBALL proves skidproof, FIREPROOF!

SAFETY is FIRST with ZORBALL!

Wyandotte ZORBALL prevents skidding, slipping—gives maximum protection against fire hazard!

Recent impartial laboratory tests have borne out the noncombustible nature of ZORBALL. Samples of ZORBALL, in these exacting tests, would not burn or evolve combustible vapors!

ZORBALL will also stop slipping

and skidding on icy steps, walks, loading docks, roads, etc.

ZORBALL resists breakdown . . . refuses to cake or mud even under heavy traffic conditions . . . is the safest, lowest "use-cost" floor absorbent known. Mail the coupon today for details. *Wyandotte Chemicals Corporation, Wyandotte, Mich. Also Los Angeles 12, Calif.*



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mended number of clips are used. The U-bolts should be placed on the dead end of the rope and the bases of the clip on the live end of the rope. Since the fastening depends on friction, the wider bearing of the clip base does not mash or damage the live end of the rope as much as the U-bolts. Clips should never be staggered.

Wedge type sockets are made by several manufacturers of fittings. The efficiency of these fittings varies with the design of the socket, and their proper attachment.

While wire rope clips, clamps or wedge sockets are used widely for rope fastenings, their size and weight makes them better suited for standing or operating ropes than for slings. All factory-built slings have spliced or socketed connections.

While the best of material and workmanship are none too good where safety of life, limb and property are at stake, the best sling is not worth much if not used properly.

There are three principal ways in which we can attach slings to the load: direct connected, in choker hitch, or in basket hitch.

In the direct connected method the upper ends of the sling legs are connected to the crane hook, and the lower ends are connected to the load by means of hooks, shackles, or the like. The sling body seldom contacts the load.

Where only one sling is employed, it is usually used in choker hitch. If the load consists of several pieces, the choker hitch grips and holds the load together.

Where two slings are used, a basket hitch is best—especially if a spreader or lift beam is used where the two slings can hang vertically. Or, if the nature of the load will permit using two basket hitch slings at an angle, such as bundles of material on skids.

In applying slings to the load, the sling legs should operate at the most favorable angle possible. As the sling leg approaches the horizontal, stresses build up in the sling and these stresses must be considered when applying slings to a load. The sling might easily be overloaded.

Hooks have safe working loads which apply when they are loaded at the bearing. Lifting on the point of the hook is not safe, as this strains the hook. A hook overloaded in this manner may not straighten out completely, but it may open up to the point that it is not safe. Hooks that have been opened or spread under loads should not be used, at least until they have been inspected and found safe.

Slings should always be protected from sharp bends or cutting edges, if maximum service is expected. Of course, this is not always possible. Where slings cannot be protected against this abuse, they should be closely watched and taken out of service when found unfit for further use.

It has been estimated that about one third of all the industrial accidents are connected with the movement of the material, and the most serious occur during the aerial movement of loads. This is work requiring the knowledge and skill of trained riggers. Loss of life and destruction of valuable property can easily happen where this knowledge and skill is lacking.

Preventive maintenance of wire rope and wire rope slings has many angles and all of them are required for perfection. The most important are:

1. Riggers must be experienced. They must be familiar with the material they are handling, and with the equipment they are using to handle it.

2. Select the wire rope or wire rope slings best suited to do the job.

3. Wire rope and wire rope slings should be regularly inspected and kept in good condition. When their condition is doubtful they should be replaced.

4. Crane equipment should be kept in perfect condition. When regular inspection reveals worn or even slightly damaged parts, repairs should be made promptly.

5. Above all, lifting equipment should be inspected frequently, and at regular intervals to indicate when replacement or repair is necessary.

For data on characteristics and performance of various types of wire rope and slings, the handbooks of the manufacturers are invaluable guides.

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- Economy
- Dependability
- Long Life

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With Safety First Shoes you know your workers will get dependable protection, long wear. More than 40 years of craftsmanship go into these high quality, union-made safety shoes. They are sturdy . . . good looking . . . comfortable. Yet they are offered at a price your workers can afford.

You can choose from many styles of "work" and "dress" shoes in the complete Safety First line. Write today for free catalog. It shows all of the Safety First Shoes in natural color.

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WARREN, OHIO

New Publication on Noise Control

Noise Control, will be the name of a new semi-technical publication to be launched by the Acoustical Society of America which recently celebrated its 25th anniversary.

"Noise — unwanted sound — from factories, city traffic, airplanes and many other sources has come to be one of the big problems in America today," according to Dr. Leo Beranek, president of the Acoustical Society.

"The problem of noise, its measurement and control, and its effect on human beings, is worldwide, and the time has come for a specialized publication devoted to exchange of information on the many facets of this subject—research, health, legal aspects, employer liability, news, etc."

The magazine will be published bi-monthly, and the first issue will appear in November. Information and subscriptions can be obtained by writing to *Noise Control*, 57 East 55th Street, New York 22.

Urge Plans for Emergency Gas Service

FOLLOWING enemy air attack by atomic or hydrogen bombs, key civil defense installations such as hospitals and mass care centers may have to convert appliances quickly to use liquefied petroleum gas (LP-Gas). The Federal Civil Defense Administration recommends that advance plans should provide for reports by LP-Gas distributors to civil defense officials showing inventories of equipment and location and capacity of storage tanks in the area.

In a new bulletin, *Restoration of Gas Facilities in Civil Defense Emergencies*, the FCDA suggests measures be taken by gas company officials. Plans are prescribed for protection of plant personnel and equipment, as well as for speeding up post-disaster restoration of normal gas services to homes and industry.

Selection of dispersed sites for new or expanding facilities is one

of the most effective means of reducing the vulnerability of any one location. Dispersion of production processes even within the same plant would permit continuous operation despite damage at any one point.

The bulletin recommends protective construction measures to reduce the hazard from flying glass and other structural fragments. Reinforcement of the structure's frame would reduce the possibility of collapse, and heavy fireproof cloth curtains or 1/4-inch mesh "hardware cloth" would afford protection against fragments.

Gas utility companies should establish a reserve of materials and supplies for emergency repairs, procuring critical items immediately. Setting up of storage yards outside critical target cities is also advocated.

An important factor in planning is the preparation and frequent dissemination to gas users, with bills or by similar means, of instructions for measures to take in event of attack.

As in other industrial concerns, a gas utility's civil defense coordinator is responsible for the overall civil defense program in the plant. He coordinates his planning with a company representative on the staff of the local chief of civil defense engineering services. The latter is responsible to the local civil defense director.


Plans for maintaining an emergency gas supply and rapid restoration of service should be consistent with the individual facility's self-protection program for personnel equipment, and buildings.

FCDA urges that each gas utility, upon completion of its civil defense emergency restoration plan, conduct a field exercise with local civil defense services to determine the plan's adequacy. Any weaknesses revealed after evaluation of the hypothetical attack test should be corrected, and subsequent exercises should be conducted at intervals to improve emergency procedures.




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ALL READY MADE SIGNS are made in accordance with the American Standard Association specifications for Industrial Accident Prevention Signs.

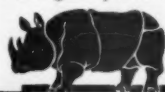
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Plastihide Gloves are "Job-designed" for long wear, safety, flexibility and comfort. Each glove made from the finest materials guaranteed against snag, tear, crack or peel. Glove fingers individually moulded to natural curve of hand insuring finger mobility. Featuring complete lines, sizes and styles, the American Rubberizing Company also maintains a technical department capable of solving your particular glove problems.



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GLOVES**

Jobbers and Agents Wanted

Send for full information



SAFETY-CUFF

AMERICAN RUBBERIZING COMPANY

615 ELEVENTH AVE. SO., MINNEAPOLIS 4, MINN.

McDonald GASFOE does it!

...a compact, lightweight respirator for protection against light concentrations of organic vapors and acid gases.

Comfortable—aluminum face-piece may be molded by the fingers to fit any face. Soft sponge-rubber face-piece cushion assures a perfect seal with complete comfort.

Economical—all parts replaceable. Inexpensive auxiliary screen protects the cartridge during paint spraying operations. One piece adjustable, positive locking headband.



WRITE FOR PRICES



B-F-McDonald
COMPANY

Manufacturers & Distributors of
Industrial Safety Clothing & Equipment

5721 West 96th Street, Los Angeles 45 • Other Offices in San Francisco and Houston

PERSONALS



E. L. NEWMAN, for the past two years Director of Ground Safety for the Eighteenth Air Force at Donaldson Air Force Base, Greenville, S. C., has been transferred to Wiesbaden, Germany as Chief Safety Engineer of HQ, Air Materiel Force, Europe.

Mr. Newman is past chairman of the Memphis Chapter, American Society of Safety Engineers, and served as a director of the Southern Safety Conference. During his stay at Greenville, he was active in the organization of the South Carolina Society of Safety Engineers, serving as program chairman and as chairman of the Committee for Admission to the American Society of Safety Engineers.

AVAILABLE

Safety supervisor desires permanent connection as safety director, safety engineer, fleet supervisor, sales engineer. Considerable experience in large industrial plants, large fleet operations, in instituting and maintaining effective safety programs. Age 40. Will relocate. Fifteen years experience. Address Box 442, NATIONAL SAFETY NEWS

WORK WANTED

Safety engineer, member ASSE, 48, married, good health, with 20 years heavy industrial and 8 years public safety engineering experience. Very successful helping reduce frequency and severity and in establishing accident-free records. Available now. Would appreciate hearing from those needing services of a hard-working, practical man. Excellent references. Address Box 443, NATIONAL SAFETY NEWS

Conscience doesn't keep you from doing anything wrong. It just keeps you from enjoying it.

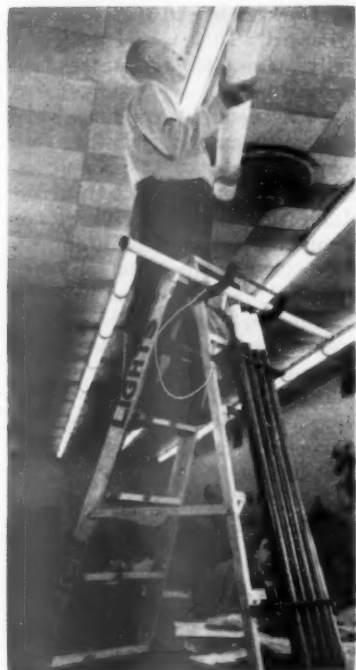
National Safety News, September, 1954

SCHOOL DAYS ARE ALL IMPORTANT SAFETY DAYS
PLAY SAFE WITH PRAIRIE STATE SAFETY SIGNS

Weatherite METAL SIGNS SINCE 1930
BAKED ENAMEL

WRITE FOR BIG SAFETY SIGN CATALOG
Prairie State Products Co. 3822 LAWRENCE AVE. CHICAGO 28, ILL.

"Light Housekeeping" Made Easier



To facilitate maintenance chores, this lighting maintenance man at the Westinghouse Transformer Division at Sharon, Pa., devised this outfit. A light-weight aluminum stepladder is rigged with a holding rack for luminaires plus a set of Micarta laminated plastic quivers for individual replacement lamps.

ASKED and ANSWERED

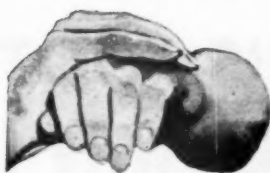
Assistance with problems of accident prevention and industrial health is offered by National Safety Council. All inquiries are answered by mail and a few topics are selected for publication.

Drier For Tar Paint

Question: We operate a fleet of two boats and barges. The bottoms of these barges are periodically painted with coal tar which wears well and is inexpensive. We recently approached the manufacturer for information relative to a drier which could be used in the tar paint so that it would dry more quickly and so that we could thus avoid the necessity of having a barge re-

National Safety News, September, 1954

PROTECTS HANDS AGAINST OIL, GREASE, GRIME, PAINT



Saves Job Time

*Du Pont "PRO-TEK" acts like
an invisible work glove*

Protect workers' hands—reduce time costs with Du Pont "PRO-TEK." This hand cream shields the skin against grease, grime, paint and insoluble cutting oils. It's easily rubbed on hands and arms by workers before starting the job. At wash-up time, "PRO-TEK" washes off quickly, cleanly with plain water—takes all the grime along. It saves job time . . . maintains production efficiency . . . and boosts morale.

Contact your supplier now for Du Pont "PRO-TEK." Or write to E. I. du Pont de Nemours & Co. (Inc.), Wilmington 98, Del.



FOR SAFETY'S SAKE . . . DAV-SON FLASHING SAFETY DIRECTOR

With Amazing Changeable Letter Slide Out Panel!

Bright traffic light red, green spots flash "SAFETY FIRST." Color, motion, light bring eyes directly to message. Only DAV-SON has changeable letter design with removable panel for quick changes, peak attention. 98 red 3 1/2" and 250 black 1 7/8" acetate letters in compartment box incl. Size 18 1/2 x 29 x 6. Complete with lamp and U.L. Cord. **\$39.75**

Insist on genuine self-sealing cork back bulletin boards—hardwood frame. Sizes 12x18 and larger. With or without glass doors. **\$4.15** up. Also with metal frames for inside or outside use.

A Dav-Son board for every purpose. Over 100 different sizes and styles to choose from. Dealer Inquiries Invited. If your dealer doesn't have the Dav-Son board you need write direct.

A. C. DAVENPORT & SON, INC.,
311 N. DESPLAINES STREET • CHICAGO 6, ILLINOIS



main on drydock over-night while the paint was drying.

The manufacturer stated that he believed the best product we could use as a drier would be solvent naphtha, however he also warned that solvent naphtha is highly toxic. Is this drier safe from a health standpoint?

Answer: It is true that solvent naphtha is toxic, with a maximum allowable vapor concentration of 200 parts per million or less. We wonder, however, whether a petroleum naphtha, such as V M & P naphtha might not serve your

purpose. This is comparatively much less toxic than solvent naphtha, which is a coal tar derivative. You might wish to check with the manufacturer and see whether he couldn't furnish a material which used V M & P naphtha.

We might point out that under drydock conditions there is probably in effect a closed space between the bottom of the barge and the bottom of the drydock in which solvent vapors would tend to collect rapidly and expose workers to a high vapor concen-

tration, so that regardless of the solvent that was used, whether naphtha, turpentine, or whatever, the workers would be exposed to a hazard. This would be especially true if the material is sprayed on.

If this dead air condition does exist, it would seem that your answer would be to provide air movers, giving sufficient current of air to change the air at frequent intervals, thus diluting the vapors below the point of maximum allowable concentration. Even here, of course, it would be preferable to use the less toxic solvent. Or, of course, if you wanted to provide painters with supplied air masks, they would be protected, regardless of the solvent used.

Loading Hopper Cars

Question: Over a period of years, we have had several employees fall while loading hopper cars. We have been fortunate in not suffering any fatalities due to these falls; however, one of our competitors recently had a fatality due to this nature of work. If you have any detail sheets on various types of guards or methods of guarding hopper cars, we would appreciate receiving this information.

Our hopper cars are loaded from an overhead storage tank using a six inch flexible gravity flow conveyor. Our hopper cars have three compartments with the number of loading ports varying from 16 to 24. At some of our plants, it is possible for the employee to walk directly on to the top of the car from the working dock.

Answer: It is assumed that you are speaking of what railroad people call covered hopper cars. Enclosed is a copy of our Detail Sheet No. 84, *Hatch Cover Fastener For Bulk Cars*. With this particular type of hatch cover, the use of a tool of this kind makes it possible for the worker to fasten the covers from the catwalk along the middle of the car, thus practically eliminating the danger of his falling off.

It might be possible to use a life belt and tail line, the latter snapped onto a cable strung on

STOP ATHLETE'S FOOT THE SANI-MIST WAY!

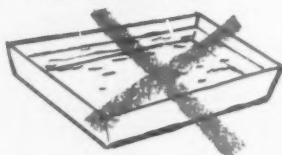


Don't Spread It

the old fashioned way!

THE NEW SANITARY WAY

THE OLD WAY



1. Step on
2. Mark time *That's all!*
3. Step off

Keep your employees' productivity up, and plant accidents down, by preventing the spread of Athlete's Foot fungi in your plant's shower room with the most sanitary foot protective device yet developed.

The SANI-MISTER Spray Dispenser provides a cooling, refreshing, full strength treatment for each user. SANI-MIST solution is individually dispensed from a sealed tank, preventing contamination or dilution by previously used solution or shower drippings. Workers prefer this personal, inviting method to ordinary foot baths or foot pads.

Laboratory tests show that SANI-MIST solution kills the principal fungi causing Athlete's Foot in less than 30 seconds. The SANI-MIST method costs only a few cents a day. For complete details, write TODAY!

SANI-MIST INC. Dept. N
1724 Chestnut Street • Phila. 3, Pa.

supports above the car so that the man could work his way along without having to fasten and unfasten the life line at frequent intervals.

If you have a dock which is at the height of the top of the car, it might be possible to arrange such a line on supports erected on the edge of the dock. A minimum of slack should be allowed in the life line so that if the man does fall he will almost immediately come up short on the line. Otherwise, the jolt he will get when he fetches up on the end of the line may be as injurious as a fall to the ground.

Wire from Washington

—From page 62

report presents the activities of Federal agencies in the airport safety field and the relationship of these policies and actions to the recommendations of the Doolittle Commission. The Air Coordinating Committee also, for the first time, spells out a specific implementation program for each specific of the 47 recommendations of the earlier report.

The Civil Aeronautics Board adopted, as part of its air traffic rules, a set of minimum safe altitudes for flight, as a result of a re-examination called for by an earlier report of the Air Coordinating Committee on Civil Air Policy. (See WIRE FROM WASHINGTON for June.)

Home Safety

S. R. 272 (Purtell, Mansfield, Sparkman) which defers Congressional action on safety latches in refrigerators and urges the states and municipalities to enact appropriate local legislation (SEE WIRE FROM WASHINGTON for August), was passed by the Senate. The House took no action on H.R. 7920, and H.R. 8170, relating to the same subject.

H. R. 7125 (Miller) to regulate the residue of pesticide chemicals in or on raw agricultural commodities became Public Law No. 518.

S. 3379 (Purtell) to exempt plain-surface scarfs from the effect of the Flammable Fabrics Acts, and to relax testing condi-

tions, was passed by the Senate and approved by the House Committee for House consideration.

Fire Safety

S. 2786 (Sparkman plus 11 other Senators) became Public Law 536. It authorizes a Southeastern Interstate Fire Fighting Protection Compact among the 10 southeastern states. H.R. 6393 (Colmer) to accomplish the same objective for the five southcentral states, was approved by the House

and has received a favorable Senate Committee report.

S. 3773 (McCarthy), urged by the Defense Department, was reported favorably by the Senate Committee on Government Operations, with an amendment. It authorizes government agencies to enter reciprocal fire protection agreements for mutual aid with public, foreign governmental and private organizations engaged in fire-fighting activities.

For Safety For Powerful Action

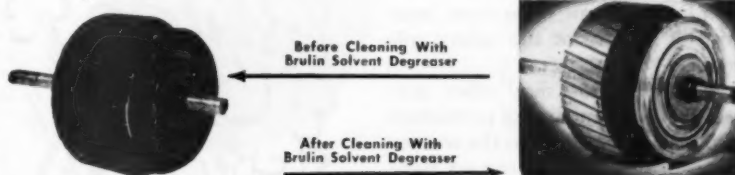


**SOLVENT
DEGREASER**

Low Toxicity Fire Hazards Minimized

Brulin's Solvent Degreaser gives the fast, powerful action of highly toxic chlorinated solvents without the many dangers common to these commercial solvents. At least 25 times less toxic than dangerous carbon tetrachloride, Solvent Degreaser has the additional safety advantage of an extremely high flash point. Solvent Degreaser is fast and positive in its cleaning action. Yet it will not harm rubber insulation, craze plastic materials, nor pit or corrode light metals. Brulin's Solvent Degreaser has many widespread uses, and, because of its ability to dry film free, it is particularly adaptable for the cleaning of electrical motors and equipment.

Here is the answer to the safety man's cleaning solvent problem.



White TODAY FOR MORE INFORMATION

BRULIN AND COMPANY, INC.

INDIANAPOLIS 7, INDIANA • 2939-45 COLUMBIA AVENUE
OAKLAND 7, CALIFORNIA • 1793 WEST 12TH STREET

THE READERS' POINT OF VIEW



Comments on topics of current interest are invited. They need not agree with the editors' opinions.

War of Words

DUMONT, N. J.—We must take issue with Mr. John B. Moore, who states in a wordy article in your July issue that there is no such thing as a "safety solvent," that the term "solvent engineered for safety" has been adopted by him.

Following this same line of reasoning, there is no such thing as a safety device, a safety shoe, a safety catch, a safety ladder, safety glasses, etc.—just because none of these things will of itself assure complete safety.

There are, of course, a great variety of solvents described as safety solvents. We alone produce more than 30 of these. Our most recently developed solvent is 1/20th as toxic as carbon tetrachloride, yet non-flammable and fast evaporating. Of course the use of this low-toxicity solvent is still not without some hazards. There are hazards in all human operations.

We have frequent requests for a non-toxic solvent and must candidly reply that there is no such thing. Not even water is non-toxic, as it is reported that the Chinese sometimes commit suicide by drinking too much water. Indeed, more people have drowned in "the universal solvent," H_2O , than have ever been injured by any of the safety solvents.

A safety shoe may offer several features, including protection of the toes. Yet it gives the wearer no assurance that he cannot have damage to the rest of his foot. Safety devices are designed to minimize the possibility of accident—but they usually require some cooperation from the worker.

Why, then, all this play with

words? There is no practical difference between "safety solvent" and a "solvent engineered for safety."

From the science of semantics we learn that words, properly used with regard to their true meaning are the tools of our thoughts—but our masters if we succumb to the misconceptions arising from their misuse. Fascists and communists well know the power of a word or a phrase as a weapon to enslavement.

Yes, there could be a phrase better than safety solvent—but "solvent engineered for safety" is certainly not it. It's just a re-hash of the same thought, employed as a selling device to cast aspersions on those who use the phrase "safety solvent."

JAY PATRICK, President,
Tect, Inc.

Peace—It's Wonderful ... So's Safety!

CHICAGO.—Your *Safety Valve* item about "Disturbers of the Peace" makes it a bit easier to live with myself, since I have always longed for the apparently greener grass of the suburbs—especially from the peaceful angle we associate with country living.

So after all these years, it's a consolation to some degree at least to appreciate that things are not always what they seem—more so during these past few years of hectic exodus to the suburbs which is gradually making young cities out of them since they are acquiring big-city problems.



"Oh, that's what that sign said."

Incidentally, a comment on the lead editorial in August about the July 4th auto accident predictions might be in order since my reaction is probably similar to countless others and undoubtedly is the effect the Council had hoped to get. After continually reading and hearing the awful predictions, I decided to add a mere 15 minutes to my automobile running time involving a three-hour drive to my favorite canoeing country, and was gratifyingly surprised to find myself arriving with time to spare, but without the usual anxiety to take advantage of the optimum miles-per-hour rushing that my normal schedule would entail.

I am sure this must have applied to many other July 4th travelers, which, after all, was the Council's intention.

Anyway, my friend, this gives you at least one man's reaction and judging by the over-all results, the Council is to be commended upon the excellent public relations job it is doing—besides saving lives.

ALLAN BOZ

Commending Dr. Kuhn

BALTIMORE, MD.—We are very much interested in the article, "Facts and Fallacies About Your Eyes," by Dr. Hedwig S. Kuhn in the July issue. We should like very much to reprint with credit this article in our *Membership News*, which is sent without charge to 2,500 members and friends of the society.

Dr. Kuhn is a good friend of our society and several articles by her have appeared in our *News*.

EDYTHE K. MOORE, Executive Secretary,
Maryland Society for the
Prevention of Blindness

COLUMBUS, OHIO—I would like to commend the article, "Your Eyes" by Dr. Hedwig S. Kuhn. The debunking of many prevalent ideas has caused such widespread interest that I would like permission to publish excerpts in our plant *Safety News Letter* as a supplement to our eye protection program.

T. M. BRENNEN, Safety Engineer,
North American Aviation, Inc.
Permission gladly granted in
both cases.

Again...

**Gro-Cord sets a
New Standard for
Industry with**



**NEO
CORK**
SOLES & HEELS



**MILLIONS
OF
SATISFIED USERS**

Gro-Cord Rubber Co., the largest manufacturer of neoprene bottom stock, has set a new standard for industry with "Neo-Cork" soles and heels. "Neo-Cork" the result of combining real cork with DuPont neoprene, provides a slip resistant, lightweight, flexible and longer wearing sole and heel that is also resistant to oil, gasoline, heat, acids and caustics.

Proved by use in all types of industry under varying work conditions, Neo-Cork has become one of the most popular and fastest selling soles and heels on the work shoe market.

Next time you buy—try "Neo-Cork"—for safety—for comfort—for longer wear. They are found on better quality work shoes everywhere.

SIZES available in brown or black

18-14 iron—7 through 15

14 iron—7 through 14

6/8—7/8 heel size 8-9 through 13-14
(13 washer)

GRO-CORD RUBBER CO.
LIMA, OHIO

Canadian Plant
GRO-CORD RUBBER CO. of CANADA LTD.
Tillsonburg, Ontario

- **LONG WEARING**
- **LIGHTWEIGHT**
- **SLIP RESISTANT**
- **RESIST
OIL-HEAT-ACIDS
CAUSTICS**



For a Successful Poster Program



JUMBO POSTER for OCT. 1954

The Jumbo poster, issued monthly, is designed for outdoor use and is available to members on annual subscription but is not stocked. Its actual size is 9' 11" by 11' 8".



0123-A

8 1/2 x 11 1/2

This new four color poster is illustrative of the 72 four color posters shown in the 1954 Poster Directory.



0306-C

25x38

Above new "C" poster, issued monthly, is indicative of the other two color posters—shown in one color on the following pages and in the 1954 Poster Directory.

T is for TIMELY

Perk up your safety program with posters that fit the occasion.

Being timely, posters claim **EMPLOYEE INTEREST**—particularly when you change them regularly.

A wide selection of subjects is as close as your copy of the 1954 Directory of Occupational Safety Posters. *It contains miniatures of 744 posters—topnotch selections on a great variety of subjects.* Additional copies are available at 50 cents each—write to Membership Dept., National Safety Council.

Posters miniaturized on this and the following pages are **NEW**. Excepting the Jumbo poster (left, upper), all will be in stock throughout 1954. Those posters shown in one color on the following two pages are actually printed in two or more colors.

For a more successful poster program: first make your selections from the brand new posters shown on these pages and then from the hundreds of illustrations in the 1954 Directory.

Electrotypes of poster miniatures on this page are not available, nor can payroll inserts be supplied.

Posters below are printed in two or more colors
(Available only in sizes indicated)



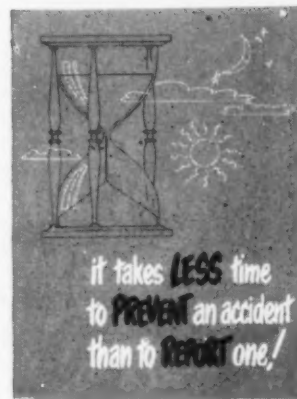
NATIONAL SAFETY COUNCIL POSTER NO. S.A.

0169-A 8½x11½



NATIONAL SAFETY COUNCIL POSTER NO. S.A.

0265-B 17x23



NATIONAL SAFETY COUNCIL POSTER NO. S.A.

0238-B 17x23



NATIONAL SAFETY COUNCIL POSTER NO. S.A.

0280-A 8½x11½



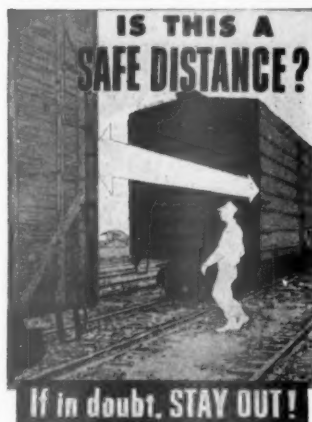
NATIONAL SAFETY COUNCIL POSTER NO. S.A.

0278-A 8½x11½



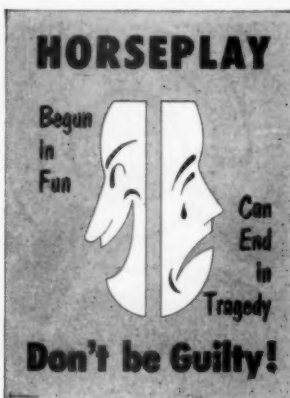
NATIONAL SAFETY COUNCIL POSTER NO. S.A.

0259-B 17x23



NATIONAL SAFETY COUNCIL POSTER NO. S.A.

0273-B 17x23



NATIONAL SAFETY COUNCIL POSTER NO. S.A.

0168-A 8½x11½



NATIONAL SAFETY COUNCIL POSTER NO. S.A.

0282-A 8½x11½

Electrotypes of payroll inserts can be furnished in all poster illustrations shown above.

Posters below are printed in two or more colors
(Available only in sizes indicated)



NATIONAL SAFETY COUNCIL

0174-A

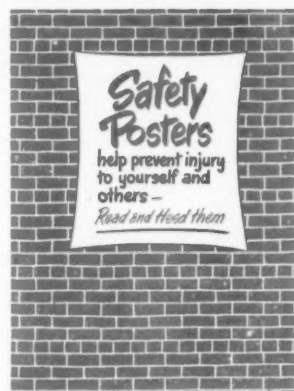
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NATIONAL SAFETY COUNCIL

0223-A

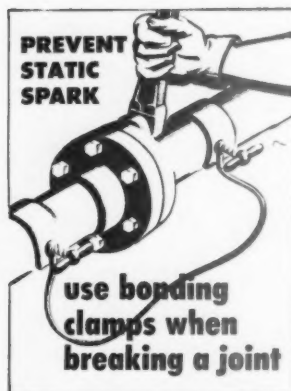
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NATIONAL SAFETY COUNCIL

0231-A

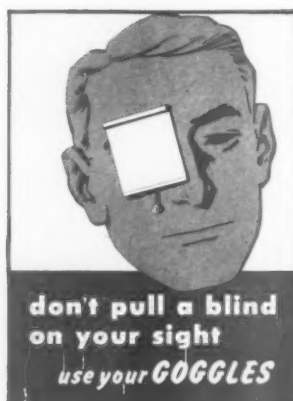
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NATIONAL SAFETY COUNCIL

0270-A

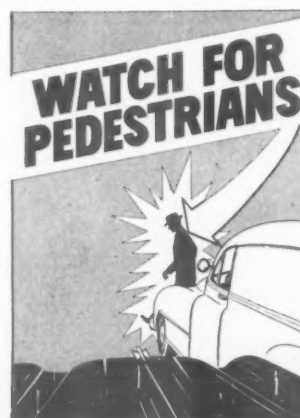
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NATIONAL SAFETY COUNCIL

0041-A

8½x11½



NATIONAL SAFETY COUNCIL

T-0271-A

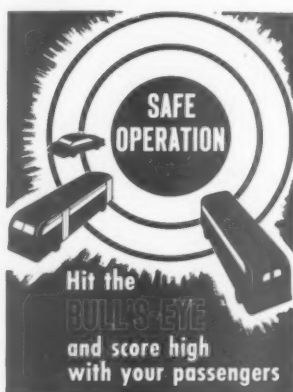
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NATIONAL SAFETY COUNCIL

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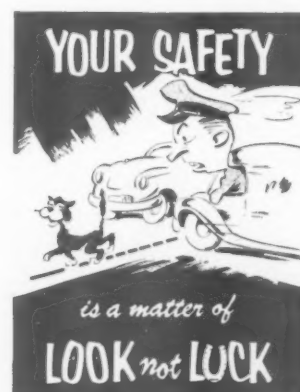
8½x11½



NATIONAL SAFETY COUNCIL

V-0264-B

17x23



NATIONAL SAFETY COUNCIL

V-0268-A

8½x11½

Electrotypes of payroll inserts can be furnished in all poster illustrations shown above.



WHAT'S NEW

IN

NATIONAL SAFETY COUNCIL SERVICES *

Operation Safety

Now's the time of year when days begin to shorten. And this means that employees who drive to and from work must step up their vigilance on the road.

Many people carry their summer driving habits over into fall. During the summer months the journey home from work was made in daylight. Now it must be made at dusk. This calls for adjustments in driving habits, and many drivers do not make these adjustments rapidly.

Your October off-the-job safety program will probably stress the hazards of driving in dusk and darkness. One of these hazards is the blinding effect of bright lights shining in an oncoming driver's eyes.

The Operation Safety feature leaflet for October calls attention to this hazard. Titled, "Now's the Time To Be the First Man," it urges the driver to be the first one to dim his headlights when he meets another car on the road at dusk or dark. It also cautions the driver to dim his headlights when following another car or when rounding a curve, and not to use bright lights for city driving.

These two-color leaflets are handy to carry in the pocket. The copy is brief, the message clearly stated. Place them in hand-out boxes throughout the plant and office, enclose them in employee mailings, pass them out with house organs or other company literature.

There are many other items in the October Operation Safety kit that will help you conduct an effective night traffic hazards program. Posters, news releases, film trailers and other materials call attention to the many hazards resulting from reduced visibility

—especially in the high-accident evening hours from five to eight.

For complete information on Operation Safety leaflets or on the entire Operation Safety program, write: Operation Safety, National Safety Council, 425 N. Michigan Avenue, Chicago 11, Illinois.

Accident Facts

The 1954 edition of the Council's statistical yearbook, *Accident Facts*, is now off the press.

Accident Facts contains facts and figures on all types of accidents—industrial, traffic, home, farm and school.



Twenty pages of the book are devoted exclusively to occupational accidents and provide the factual background necessary to give direction to an industrial safety program. There is a detailed list of accident rates by major industry groups, as well as charts showing the accident trend

during the past 25 years. Most common source of injuries, part of body most frequently injured, off-the-job accident problems, unsafe acts and unsafe conditions contributing to permanent impairments and deaths, and other topics are included.

The 96-page book is an invaluable source of ideas and data for making speeches, writing articles, preparing reports and planning safety campaigns.

Off-the-Job Safety Kit

The Council's new, revised *Off-the-Job Safety Kit* is now available, at one dollar each.

Statistics show that more than twice as many workers are killed in off-the-job accidents—at home, in traffic and public places—than are killed in on-the-job accidents.



Many companies are finding that there is a need for off-the-job safety education for employees and their families. If the accidents occurring on the job can be reduced, off-the-job accidents can be prevented as well.

The off-the-job kit is designed primarily for use by industries in educating their employees and families in safety off the job. The kit included leaflets, posters, fact sheets, planning guide and program suggestions aimed at the three areas of off-the-job safety—home, traffic, and public safety.



Look to this page each month for latest news about NSC services. Address requests for additional information, samples or prices to the Membership Department.

Catastrophes Take Fewer Lives

Catastrophic accidents—those killing five persons or more—took less than half the number of lives in the United States during the first six months of this year than in the comparable period of 1953, and fewer than in most of the like periods of the last 15 years, according to statisticians of the Metropolitan Life Insurance Company.

This year's half-year total was slightly over 500 deaths.

In general, the trend was towards decreases in catastrophic deaths from tornadoes and civilian aviation, railroad, and water transportation accidents; and towards a slight increase in similar deaths in military aviation and in dwelling and apartment fires.

The greatest decreases in catastrophic deaths were in civilian aviation and in tornadoes. Only 21 fatalities were recorded in ci-

vilian aviation this year, while last year's toll was 172. The first-half deaths from major tornadoes last year mounted to more than 400; this year there were less than 10. The largest single catastrophe this year was the flood in Southwest Texas which cost 23 lives.

Copper Basin

—From page 21

more than 30 years' service with the company.

Prior to 1947, the safety department was a division of the personnel department, with a staff of two engineers and a part-time secretary. During 1947, management realized the staff was inadequate to deal with the accident situation. Plans were made to bolster the staff with young graduate engineers.

New safety offices were constructed and in 1949, the safety functions were separated from the personnel department and made responsible to management as a technical or professional department.

At present, the staff consists of four engineers who cover specific phases of the company's operations. Joe G. Harbison devotes his attention to milling, smelting and acid manufacturing. Albert D. Annand concentrates on underground operations. N. H. Marlette is in charge of physical and employee service, while Don L. Sisson is safety engineer-at-large with supervision over first aid and visual education programs.

Also serving the safety program is Emmett Weeks, whose title of librarian doesn't begin to cover his many duties in the plant and through the Copper Basin communities. As associate editor of *T. C. Topics*, a newsy eight-page illustrated monthly, he does most of the news gathering and sees that safety gets a good play in its columns. He also assists in the visual aids program within the company and in schools and community organizations.

The objectives of the safety program are scarcely distinguishable from those of management. Briefly, they are:

1. To challenge departmental management's ingenuity in

BOTH BRADLEYS PROVIDE THE UTMOST IN SANITARY WASHING FACILITIES

BRADLEY DUO-WASHFOUNTAIN FOR 1 OR 2



BRADLEY WASHFOUNTAIN SERVES UP TO 10



BOTH PROVIDE FOR FOOT-CONTROL

- Have Central Sprayhead—NO Faucets
- Have Self-Flushing Bowls

With foot-control, hands touch nothing but clean running water—no chance of contaminating contacts.

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improving facilities, processes and methods.

2. To improve supervisory approaches and techniques.
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4. Maintaining interest in quality workmanship.

Are safety committees cumbersome and time-wasting?

Tennessee Copper doesn't think so. The safety engineering department has the support of a committee organization reaching all types of employment. The five general types of group conferences or committees are: Central Management, Central Labor-Management, Departmental Management, Departmental Labor-Management and Workmen's.

Group meetings, awards and employee training have been equally effective in reducing accident rates and promoting good work.

Committee Set-up

Top management holds weekly conferences with all department heads. The vice-president and general manager presides and safety is discussed on the same basis as other business that is handled by the various departments involving company policy, development, or production.

Each operating department is equipped and staffed so, that with assistance from an appropriate service department, it can handle involved operating or technical problems. The company attitude is that the safety problem within a department be identified and handled on the same basis as any other problem common to the department.

The Central Labor-Management Safety Committee has been invaluable not only in securing acceptance of safety measures but in promoting a better understanding between management and the unions, and among the unions themselves.

The committee includes the chief shop steward from each operating department and the safety staff. The safety director is chairman and one of the safety engineers is secretary. At the monthly meetings, the discussion includes accident experience, accident cause analysis, new developments in the safety and



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hygiene program, cooperative enterprises, etc.

One prime objective in the conferences is to emphasize the importance of cooperation in safety matters at the foreman-workman level. Suggestions concerning specific unsafe conditions are discussed only after they have been taken up with the foreman concerned and there has been no action or acknowledgment.

Department heads hold weekly conferences of departmental management with all general supervisors and a safety engineer in attendance. Current production schedules, production breakdowns or accidents occurring during the week are discussed for determining causes and appropriate action to be taken.

The departmental Labor-Management Safety Committee convenes monthly with department head or assistant as chairman and a safety engineer as secretary. Shop stewards attend and the agenda is similar to that of the Central Group except on a departmental basis.

Periodically Workmen's Safety Committees, made up of shop stewards and accompanied by a safety engineer, make safety inspections of their respective departments physical facilities. Suggestions are recorded and members are advised of final disposition.

Safety Meetings

Through five general types of meetings, it has been possible to reach all employees:

1. Departmental supervisory.
2. Departmental general.
3. Sub departmental.
4. Crew meetings.
5. Planning conferences.

Most departments hold monthly meetings in which all supervisory personnel take part. In these meetings, general company business, production schedules, personnel problems, mine and plant development, and recent accidents provide topics.

Audio-visual aids are used frequently in meetings. The company maintains a regular schedule of motion pictures and sound slide films, using material from

the National Safety Council and other sources, supplemented by homemade pictures. The safety department has a 16 mm motion picture camera with projection equipment and a magnetic sound system.

Departmental general meetings are not held on a definite schedule except in the mining department where one is held in the spring and one in the fall. In most departments this type of meeting is held for a specific purpose, such as celebrating a no-accident record or discussion plans for improving a bad record. Talks are given by management and by departmental representatives, with an occasional outside speaker.

Frequently, employees attending these meetings are given something useful to take home, such as a pound of coffee, a sack of sugar, a ham, or a basket of groceries. Occasionally a department holds a picnic.

Sub-departmental meetings are usually held to give some group special recognition for unusual achievement. These vary from

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NEW YORK, N. Y.



MONTREAL, CANADA

542

dinner meetings to informal get-togethers for passing out groceries.

Free food, as many a company has found out, has an appeal beyond its actual cost. For more than five years, divisions and the entire plant have been given a pound of coffee for working specified periods of time without a disabling injury. For the entire plant, the period is 30 calendar days. For divisions, it may vary from 60 to 270 days, depending on the number of employees and the nature of the exposure. Even when coffee was retailing for less than 50 cents a pound, this award was awaited eagerly. Now with the price at a fantastic level, few gifts are more welcome.

This award plan was designed to show management's appreciation of good work, to encourage wholesome competitive spirit, and as a medium for higher supervision to make personal contacts with employees.

Crew meetings are held at regular intervals—weekly, bi-weekly

or monthly, depending on the nature of operations or the attitude of the department head. The foreman can bring his crew together for discussion of specific hazards, safe practices, and cooperative enterprises.

Meetings last from 15 to 30 minutes, depending on the amount of business to be taken up with the crew. Audio-visual aids are used occasionally. In several departments where weekly meetings are held, one meeting a month is devoted to these aids.

In the change house at each mine are three blackboards—for the day, evening, and night crews. Any workman noting a condition he considers unsafe during his shift can write it on the board in addition to reporting it to his foreman. The notations stays there until the condition has been corrected. Foremen, naturally, try to correct the situation as quickly as possible.

Planning conferences are held prior to construction jobs, particularly when a shut-down of

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National Safety News, September, 1954

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"SAFE EXIT" is a 20-minute, 16 mm, black and white sound movie, ideal for use in any safety training program for children or adults or for informal luncheon club or PTA meetings.

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more than one department is involved. Top supervision of each department get together and plan the job step by step. Plans are recorded and a copy given to each person responsible for any phase of the job.

Employee Training

One person is designated to be in charge of the entire job on each shift and any minor change is cleared through him before it is initiated.

No formal company-wide training program is in operation, but there is a sincere effort to see that each employee is properly introduced to the company, given adequate job instruction, and followed up to see that he has a reasonable working knowledge of the instructions.

The new employee's training begins at the employment office where a history of employment and experience is recorded for passing on to his supervisor. Com-

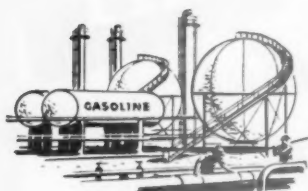
pany policies and practices as they concern him are explained.

A medical examination is part of the employment procedure and periodic check-ups are given in operations where health supervision is advisable or where the employee requests it. At present medical service is available for major or minor occupational injuries at the small company hospital by part-time company physicians. A more comprehensive health service program is among plans for the near future.

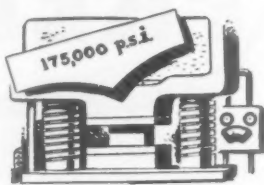
In the Mining Department, the new man's first contact is with the department head who spends from one to two hours with him trying to shape his attitude toward the company and the men with whom he will work. Then for about three weeks he is placed under a training foreman who teaches him safety standards, first aid essentials, and job performance, both in the classroom and under actual working conditions.

At the completion of the training period, he is given written

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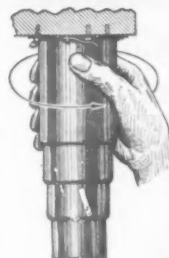


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and performance tests on his attitude and ability to absorb instruction. If he passes these tests, he is given a certificate of achievement and assigned to a crew where he will work until promoted. The training foreman checks him for a time to observe his progress and the foremanship of his supervisor.

When an employee is placed on a job which requires special skill in the use of tools or the operation of equipment, he is examined for his proficiency and given a certificate if he passes the tests.

Supervisory Training

Training conferences are held occasionally as a clinic on foremanship. These review the principles of good foremanship and encourage improvement in supervisory performance.

For these conferences, foremen have been grouped in various ways, depending upon the nature and scope of the training, by levels of authority, or along departmental lines.

The conferences have been led by representatives of the State Department of Education, the U. S. Bureau of Mines, and the company safety department. Department heads usually attend for the prestige they can give the conferences and the encouragement they can give the foremen.

Community Relations

Homes of T. C. people cover a wide area of three states, with 34 postal addresses listed. Some live as far as 40 miles from work and most of them travel by private motor vehicles, either individually or in car pools. This transportation, plus pleasure trips, runs up a high mileage each year. While the off-the-job experience has been somewhat below the national average, it is a source of deep concern to the company.

With a working force spread over so many communities and unincorporated rural areas, an off-the-job safety program is far from easy. Instruction at work becomes more important. T. C.

Topics is mailed to all employees' homes and to schools and local organizations. Emmett Weeks makes frequent visits to schools and other groups and visual aids are available for safety meetings. Picnics, barbecues and other gatherings also offer opportunities for putting across a safety message.

One of the projects which is enjoying public support throughout the Basin is the new community hospital. In the safety department office is an architect's sketch of the building and Sam Sharp has been one of the leaders in the project.

At present the area is served by a small company hospital at Copperhill, which is available to the public as its facilities permit, and a small private hospital at Ducktown. Apart from these, the nearest hospital is at Cleveland, Tenn., a long trip when the stork is hovering over or when the patient has a ruptured appendix.

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Safety Lifeline Lock

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Locks automatically. Instantly. Slips onto ordinary rope lifeline. Moveable up or down with man. Instant locking position at all times, whether stationary or being moved up or down.

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Foot Guard Equipped With Anti-Skid Full Sole

pital, as in other community projects, the company has been a liberal contributor, but on the same basis as any private citizen. Its management is in the hands of an independent board representing all community interests.

Operations in the Basin have covered a century of metal mining. The progress of the industry is graphically shown in a recent display of miners' lamps, from early candlesticks, lamps using jellied petroleum, the carbide cap lamp, and modern electric cap lamp. Not all phases of safety development can be shown so graphically but it does not take much imagination to contrast present conditions with those that existed in the early days.

Management's attitude toward accident prevention and its faith in safety principles were clearly shown when the safety engineering department was given improved status in the organization. It regards a sound safety program as indispensable in efficient operation and there has been official support and encouragement back of the steadily declining accident rates.

Cases for Comment

—From page 58

operation is part of his normal duties and his method of lifting was proper. The doctor diagnosed the condition as "spontaneous pneumothorax," explaining that it was a non-occupational condition involving fluid in a sac on the lung. The bursting of the sac containing the fluid can be caused by any movement, even by deep breathing. The employee was hospitalized for several days so that the fluid could be drained.

DECISION: This injury should be included. Some of the judges commented that while the bursting of the sac might have occurred during any moment, apparently it did occur on the job while the employee was lifting a bundle of cops. Since this arose out of and in the course of employment, they believed that it was chargeable in accordance with the code.

* * *

Could this employee's condition have been noted by a physical

examination before placing him on the job? Could he have been placed on a job where an injury of this type would not have occurred?

Would proper lifting technique, putting all the strain of lifting on the legs, have caused such a strain in the chest?

Here's another case indicating the importance of pre-employment physical examinations, and periodic re-examination of employees.

Industrial Health

—From page 53

tially harmful to the individual. The supervisor, with consultation with the physician if he wishes it, must take the responsibility for seeing to it that the employee is not assigned to the restricted type of operations.

In the year 1952, Consolidated Edison Company dealt with 896 cases of heart disease severe enough to cause sick absence during the year or to keep the individual on limited work assignment during the year out of a total of 24,473 employees, an incidence rate of 3.6 per cent. If cardiac cases had been included, the incidence rate would be approximately twice that.

These employees who were on restricted work or who had acute attacks during the year covered almost 400 job classifications doing everything from clerical work to manual labor and including the full range of operating and engineering functions. The figures refute the idea that an acute coronary thrombosis almost invariably results in death or permanent disability. There were 66 acute thromboses in this group in 1952, of whom 46 (69 per cent) returned to work, five were retired for disability and 15 did not survive the acute attack.

Of the coronary cases who have returned to work, more than one-fourth are on full duty without restrictions. Half of the remaining three-fourths are on the same type of work which they had prior to their coronary attack and only three-eighths of the total have had their job title effected by their cardiac condition.

—Next page



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Wing-style thumb, curved fingers fit naturally, complete action freedom.

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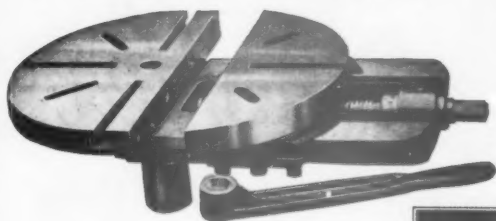
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It will give years of trouble-free service—no springs, bolts or ball bearings to cause trouble; no panels or triggers to catch. Fits 2" square of door-opening gear. Special pockets also available.

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425 Magee Street, Pittsburgh 19, Pa.



Evaluation of the capacity for work of persons who have had coronary artery disease is a highly individualistic procedure and only a few general rules can be laid down. Generally, they can do more than is believed. For instance, the St. Louis Public Service Company has for many years employed bus operators who have had coronary attacks and have had good recoveries. They have never had a serious accident from the employment of such persons.

Work or strain rarely causes heart disease and Consolidated Edison has had only seven claims in seven years in which compensation was sought for an acute coronary attack believed traceable to strain. In four of the five in which compensation was granted, the Consolidated Edison Medical Department first observed the possibility of a causal connection.

The form of circulatory disease which generally requires restriction from driving of automotive equipment, handling of cranes and hoists or performance of heavy or hazardous work is high blood pressure.

Management has a stake in keeping the cardiac at work because the disease usually strikes at the period when his value to the industry is the highest. With care and common sense, most cardiacs can be kept at active and productive work.

Designed for Health

Plant Design for Health Protection, by Theodore Hatch. Chemical and Engineering News 32:2994-2997 (July 26, 1954).

THE ULTIMATE OBJECTIVE of industrial health engineering should be to anticipate potential hazards in the course of development of a process and to design equipment in such a manner that hazardous conditions will be eliminated in the design of the plant. Hazardous working conditions are generally now recognized in advance but this fact receives only secondary consideration in design. The hazards remain to be corrected after the process is put into operation.

A new plant designed and built by the Mutual Chemical Com-

pany of America for the production of sodium chromate and sodium bichromate from chrome ore is an example of dealing with the hazards at the design stage. In the design of this plant it was decided that every step in the series of processes was to be examined for its possibility of producing and releasing contaminants. So far as possible, processes with the least such possibility would be chosen.

The amount of toxic materials released by the various processes was to be further reduced by careful selection of equipment and by necessary alterations in design and construction to make for tight enclosure and easy ventilation. The necessary control equipment was to be built into the equipment so as to become a necessary part of the operations insofar as possible.

In this process, the receiving, grinding, roasting and leaching of the ore requires the handling and processing of a considerable amount of finely divided solids and this is always a potential source of dust. It was recognized that dust is disseminated from such operations only by air movement and that the principal force causing the air movement is the movement of the solid material itself. The air flow is produced where the solid materials fall or are thrown off by a mechanical device and when the solid comes to rest, the induced air stream escapes and carries the dust with it.

In order to minimize this, it is obviously necessary to keep enclosures over such equipment as tight as possible. This means that equipment enclosures must be constructed of heavy materials, with seams and joints welded or bolted together over gaskets. Access doors must be provided and must be attached to equipment in such a manner that they are difficult to keep open and easy to close and seal tightly.

In this system, production of local points of high pressure by material flow is avoided by use of return air-ways or jumpers to equalize pressure on the two sides of points where material falls or is mechanically thrown. Dust is

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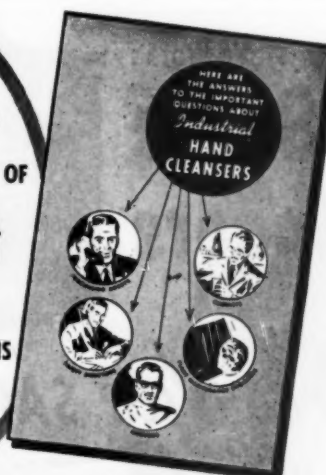
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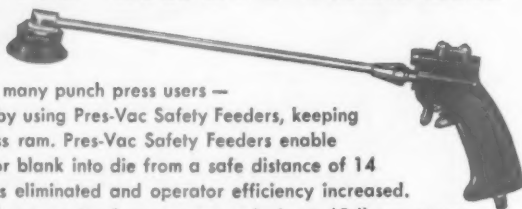


Western Stove Works,
well-known California

manufacturer — like so many punch press users —
saves workers' fingers by using Pres-Vac Safety Feeders, keeping
fingers away from press ram. Pres-Vac Safety Feeders enable
operator to feed part or blank into die from a safe distance of 14
inches. Fear of injury is eliminated and operator efficiency increased.

Also AIR
BLAST VALVES

Pres-Vac operates from compressed air at 45 lbs. pressure
which passes through a venturi to create a vacuum.



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also suppressed by the use of
inclined chutes or inclined con-
veyors in place of free fall for
lowering materials. This substi-
tution has been effective not only
in reducing dust but in reducing
operating difficulties around auto-
matic weighing machines.

Dust control ventilation has
been provided mainly by making
conveyor housings higher than
normal and using the housing it-
self as the air passage to the dust
collector which is connected only
to the material storage bin. When
the roasted ore is leached, there
is a possibility of considerable
dust release as the hot material
is dropped into the tank and con-
siderably more when water is
added to the hot material as the
steam produced can carry out
particles of dust or droplets of
chromate or bichromate solution.

To carry away steam and drop-
lets, the leech tank was provided
with a fairly close fitting hood
with a free discharge through a
large diameter stack. The re-
quired ventilation is provided by
natural draft from the heat in
roasted material.

Where the liquor from the
leech operation is transferred,
there is danger of splashing with
the formation of droplets. This
hazard has been minimized by
using submerged outlets through-
out the liquor transfer design and
by careful choice of pumping and
conveying equipment.

The building is also designed
to minimize the air contamination
by dust and by solutions. Pro-
vision has been made for the
liberal use of water to remove
spilled solutions in wet processing
areas and a vacuum cleaning sys-
tem is built in for the collection
of any spilled dust.

The various processing areas
are separated from each other by
tight partitions. These partitions
prevent the transfer of dust con-
tamination from one operation to
another if there should be a
breakdown in any part of the
plant.

The only remaining serious
problem of dust control is in bag-
ging the dry products. Here a
change in the bagging process
might accomplish as much as im-
proved local exhaust ventilation.

That Third E

—From page 29

to indicate that safety rules must be observed by everyone.

When safety rules are violated, they certainly have not been enforced. The question of disciplinary action must be taken or out the window goes your safety rules. Here the field is wide open, and the field can be a muddy one. If it is necessary to take disciplinary action, you can name your own poison.

Thirty years ago our company had a safety program which was rigidly enforced, so I am told, and the disciplinary action taken in some cases was discharge. There was no uncertainty as to whether rules would be enforced. Workmen knew what was forthcoming if safety rules were ignored.

In 1923 our employees had 132 disabling injuries, of which nine were fatalities, and the frequency rate was 48.75 and the severity rate was 21.39. In 1953 our employees had four injuries with a frequency rate of 1.09. We still have an enforcement program, but there has been some modification.

After disciplinary action, the recipient is never happy about it. Often there is a question in his mind about whether he has been treated justly. Feelings are easily hurt and you have more or less lost a lieutenant in helping you carry out your safety orders.

If a wage earner is arrested on the highway for speeding in a company vehicle and loses his driver's license, he has violated not only the motor vehicle law but your safety rules. The boss may give him time off without pay as disciplinary action.

Take another case, where the pipe line superintendent is arrested for speeding and loses his operator's license. If someone in the company is foolish enough to get the super a limited driving permit to keep him on the job, your enforcement program is shot all to pieces. Your enforcement must be uniform and just.

One big question is "Who is going to do the enforcing?" With wage earners the enforcing must be done by the foreman and superintendent. With the super-

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M&M RAIL CLAMPS

Used for car stops, on loading platforms, temporary sidings, cars on grades and traveling cranes.

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The Dangerous Way



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WRITE FOR BULLETIN NO. 4



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You'd ask "CAN YOU SEE TO WORK?"

--if he reported with a patch over one eye.

But what happens when one of your workers LOOKS normal, but SEES with only one eye? More have this trouble than is supposed.

Plant managers who are now checking, to make sure every employee's eyes are *working efficiently TOGETHER*, report 44% fewer accidents . . . 20% less spoilage . . . 45% lower training costs.

NO plant can afford workers with UNHAPPY EYES. Make a test of modern visual checking . . . no cost or obligation.



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COMPANY _____

CITY _____

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AT AMAZING LOW COST



"Woven-Gards" are hand protectors, mitts, pads, sleeves and aprons made of a long wearing woven cotton safety material. Provide flexibility, comfort, resistance to abrasion and cutting. Highly oil absorbent. Excellent for handling oily, slippery sheets. Porous weave makes them the finest protector for handling lower temperature jobs. Excellent protection at lowest cost. We manufacture a complete line of industrial safety apparel. Write for free catalog with price list.

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the Genuine



Demand this
Trade Mark

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A Corporation

1701 Garfield Street, Danville, Ill.

(In Canada: Safety Supply Co., Toronto)

DON'T LOSE MAN HOURS

due to

POISON OAK or POISON IVY

IDU Skin Lotion guaranteed protection against two of summer's most disabling and annoying poisons, poison ivy and poison oak.

For more than a decade IDU Skin Lotions has been giving outdoor workers, linemen, utilities workers, gardeners and foresters the protection they need from poison ivy and poison oak.

These two spring and summertime hazards to health and efficiency may soon become troublesome. Be prepared!

Don't let these irritating conditions develop—use IDU for their prevention

ORDER NOW

Available at the following prices:

4 oz. bottles.....	\$ 6.00 a dozen
8 oz. bottles.....	\$10.00 a dozen
1 pint bottles.....	\$16.00 a dozen

Send for a free sample on official company stationery today.

I.D.U. PRODUCTS CO.
WAUSAU, WIS.

visory group, management must act in cases of violation. With management, they should do their own enforcing.

Here is one point I want to get across.

Each of us and the two billion people in this world must discipline ourselves to eliminate the unsafe acts, unsafe practices, traffic violations, etc., if we are ever going to reduce this terrible toll of accidents. We must practice what we preach and set an example. Action of this kind is like courtesy—it's contagious.

Start with Yourself

The next time you exceed the legal speed limit, check your conscience. Ask yourself if you are illustrating good accident prevention.

The next time you, as a safety man, do a little government job at a grinding wheel in the company's shop without goggles on, ask yourself if the men watching you are going to believe and participate in your eye protection program.

We could add another E, and I am thinking of *Enthusiasm*. We could and should be all fired up over this question of enforcement and do something about it. If we enforce ourselves, it will catch on with our employees; they will enforce themselves to work safely and the unpleasant results will be reduced.

In our company we put forth an extreme amount of effort to convince employees that safety rules and safe practices are for their own well being and we make every effort to convince the individual employee that he must train himself to abide by the rules.

As an illustration I dropped in at our Grapeville Compression station for an inspection one afternoon. I found a repairman chipping a hole in a compressor head to make it fit an over-sized stud. He was not wearing goggles. I called it to his attention in a friendly way, then proceeded through the plant and grounds to complete the inspection.

I had a feeling that if I went back to the pump house, I would again find him chipping without goggles, and my hunch was right. We had another session. Then I

drove away from the station and while not too far away something seemed to tell me that if I returned to the plant I would again find him chipping without eye protection. I returned and found what I thought I would.

This time we had a real session. I pointed out the embarrassment his lovely family would suffer if he should lose his eyesight. Since that time has has consistently worn his goggles on hazardous jobs and also has had great influence in spreading the gospel.

Employees are also encouraged to assume the role of big brother and help fellow employees, especially new employees, to obey safety rules. I feel that this type of enforcement has paid dividends. We have good employee relations in our company, and I know of no better aid for good relations than a sound and just safety program.

Let's take a more personal interest in *Enforcement* and give it the consideration that is accorded Education and Engineering.

Small Plant Dilemma

—From page 25

A typical example of the close relationship between health and safety in the small plant is found in the experience of Weber Engineered Products, Inc., of Cincinnati, a manufacturer of power garden equipment. Weber was organized as an independent concern in January, 1953, and employed 135 persons, chiefly in machine shop and assembly work. There was a partially equipped first aid room in the plant, dating from past occupation of the building by another company.

In filling an opening for a clerical employee in the personnel department, a registered nurse was employed for the purpose of providing emergency coverage in the first aid station. The nurse advised the management of her legal and ethical responsibilities in the matter of rendering medical care to employees, telling them that this can be done properly only with the supervision of a physician. A call for assistance to the Academy of Medicine was referred to the Bureau of Industrial Health. As a result of an inspection of the plant by a Bu-

Got DUST STORM THROAT?

YOU NEED A . . .

DUPOR No. 4



The respirator that's made to order for protection against dust, fumes and paint spray! Has everything, and more than you will find in units costing twice the price! Double filters; soft rubber face mask; sanitary face cloth; exclusive Dupor valves for controlled breathing; panorama vision! Economical protection that you cannot afford to be without! Write for sample, \$2.00 postpaid!

H. S. COVER, SOUTH BEND, IND.

"Respirators for Industry since 1894"

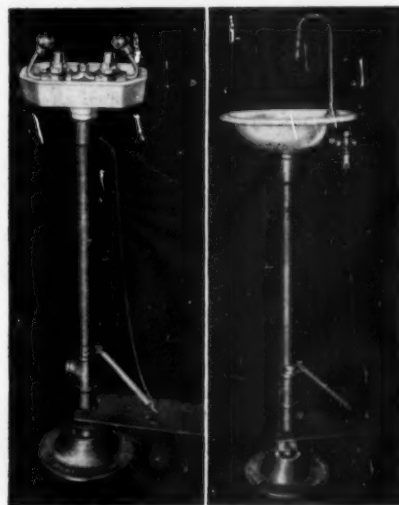
TAKE EVERY PRECAUTION . . .

TO SAVE PRICELESS VISION!

The HAWS Eye-Wash Fountain makes it possible for the worker himself to safely, easily wash injurious chemicals and foreign matter from the eyes before medical aid can be at hand. Has the potentiality of saving vision, reducing insurance claims.



AND to prevent dangerous and expensive eye accidents, encourage workers to wear goggles and plastic face shields by installing a HAWS Goggle-Wash Fountain—eliminates one of workers' main objections to wearing these safety devices.



"Precaution" is really the cheapest thing you can buy!

HAWS Safety Equipment costs only a few cents per worker.

Write for literature today!

HAWS

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Solves
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Drying
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Improves
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Low Cost!

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reau representative, and in consultation with the management, a private physician was engaged to supervise the program, visiting the plant on a regular schedule for a total of four hours per week. A statement of policy was now made to the employees by the president of the company:

For the purpose of providing for our employees a working environment that is as safe and as pleasant as possible, and for making available to them certain techniques of modern preventive medicine that are of proven value, the Company has established an in-plant medical program to carry out the following health measures:

1. Pre-placement medical examinations of new employees, including blood serology, urinalysis and chest x-rays.
2. Periodic medical examinations of all employees on a voluntary basis.
3. Emergency care of injuries and illnesses that may occur during working hours, and follow-up care of conditions related to occupation as required by statute.
4. Attention to sanitation, industrial hygiene and safety precautions in the plant.
5. Maintenance of adequate and confidential medical records.

The program is under the direction of a licensed physician assisted by a qualified registered nurse and by a competent consulting staff. The physician reports to the Vice-President of the Company.

It was believed that this was a "safe" shop in which to work, although no reliable health or safety records were available. One of the first steps taken by the Weber management, acting on recommendations of a physician who visited the plant twice weekly for a total of four hours, was the development of a system of accurate health records for use by the physician and nurse. Since no one else in the plant had been assigned safety responsibility, the recording of information upon which accident prevention action could be based was included.

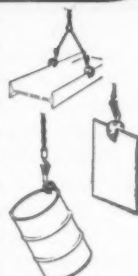
Within a short time, a surprising thing was learned. Although there were not many disabling injuries, these were occurring at a rather high rate. Cumulative experience for three month periods showed average frequency rates of over 35.0. When the significance of this was pointed out, and the rate compared with average

MERRILL MATERIALS HANDLING DEVICES

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TWIN LIFTER



HAND GRIP



DRUM TILTER



DRAG CLAMP



DRUM OPENER

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MASPETH, N. Y.

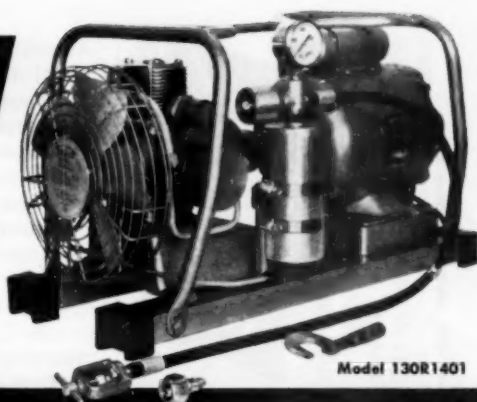
figures for similar plants of the same size, the management demanded immediate preventive action.

The health program was extended to include a formal safety program, developed under the guidance of the Bureau of Industrial Health. National Safety Council membership was considered a "must." A part-time safety man was appointed from the supervisory group, and a plant safety committee organized to consider safety matters. At the same time, the usual medical services, including voluntary periodic health appraisals of employees went forward. Several industrial hygiene hazards, such as exposure of the skin to cutting oils, were controlled. Accident experience improved, and many employees were for the first time taking a real interest in health and safety, both on the job and off.

Recently, recognition of achievement was granted the Weber plant by the Industrial Medical Association and the

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and self re-sealing relief valve. Weighs only 79 pounds. Cornelius Portable Air Compressors will provide years of satisfactory service. Their exclusive design features are the same as incorporated in the famous Cornelius Aircraft Air Compressor. Proven by thousands of hours' operation in our nation's finest combat aircraft.

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Special Bone-Dry construction for most comfortable safety shoe ever built. Workers wear them with pleasure the year 'round. 18% stronger! Cost less to wear! Write for complete illustrated folder.

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IMPERIAL
GOGGLES**

★500 WELDERS
COVER GOGGLES with
baffled side shields

★502 CHIPPERS AND GRINDERS
COVER GOGGLES, clear plastic,
with perforated side shields



★ Here are the goggles that all industry is acclaiming as providing the greatest combination of comfort and protection ever produced. "Imperials" are the finest, yet are priced to save you money. Six styles — cover-all and regular. Write now for literature and prices.

- ★ Uses standard 50 MM round lenses
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- ★ More ventilation through cup slots — no fogging of lenses
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- ★ Available with or without metal adjusting top bar

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Built for Better Protection DOCKSON FACE SHIELDS

WRITE FOR YOUR DISTRIBUTOR'S NAME AND OUR COMPLETE CATALOG OF HEAD AND EYE SAFETY EQUIPMENT

MAXIMUM PROTECTION—against the hazards of buffing, polishing, grinding, plating, scaling, flash, buff and spot welding; hot-liquid splash, acids or chemicals.

YOUR DOCKSON DISTRIBUTOR—a selected specialist, stocks a complete line of Dockson Products to give you fast service and personal attention. We back our distributors 100%.



American Foundation of Occupational Health. Following a personal appraisal of the facilities by a director of the Association, a Certificate of Approval for the Weber Employee Medical Service was granted. The certificate is recognized in industry as a reliable measure of the adequacy of a plant health service to meet the specific needs of that employee group. Less than 200 plants, representing many of the nation's leading industries, have been granted this approval since 1951. Weber is one of the smallest plants to have been so honored.

The total cost of the Weber Company health and safety program during its first year, was approximately \$6,000, or \$40 per capita. These figures compare favorably with those reported by other industries. The National Association of Manufacturers, in a 1951 survey, found \$45.39 to be the average per capita cost of health, medical and safety programs reported by 730 member companies having less than 250 employees, and that figure was considered to have been understated by a substantial amount.

It has been demonstrated at the Weber Company that a high standard of health protection can be provided for the employees of a very small organization at reasonable cost, by tailoring health services to the specific needs of that plant.

The Real Answer

The Cincinnati experience has been of value in pointing out one way to improved health and safety service for small industry. It has been demonstrated in a few communities that other plans also may be workable. In every one of these situations, the need for a catalyzing force in launching and guiding effective action has been acknowledged. In Cincinnati such a force has been found jointly in the City Health Department and the University's Department of Preventive Medicine and Industrial Health in the College of Medicine.

It has been shown that a very large segment of industry still has substantial need for both health and safety services, and that in

the small plant in particular, these two components of the control of illness and injury are inseparable.

The only real answer to the dilemma of the small plant lies in the ability of the health adviser to provide safety services as well as medical services, or making available to several plants on a cooperative basis the specialized services which a health-and-safety team can provide.

Green Cross News

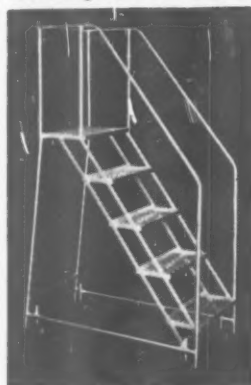
—From page 48

a real interest in safety and genuine enthusiasm for the competitive approach. Seventeen of the 21 companies finished the seventh consecutive month in May without a disabling injury.

Industrial Round Table

The Industrial Round Table of the Safety Council of Western Massachusetts (Springfield), recently concluded, featured two talks of particular interest to those who attended. One was

COTTERMAN WELDED STEEL SAFETY LADDERS For Filling Rooms—Stock Rooms—Vaults



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New Improved design now being made from 1" diam. round furniture tubing.

Mounted on Swivel Brake Casters which allow the ladder to be rolled freely when no one is on it. When you step on the ladder the rubber cushioned legs rest on the floor and prevent rolling.

Made in 7 heights:—18" 2 Step, 27" 3 Step, 36" 4 Step, 45" 5 Step, 54" 6 Step, 63" 7 Step, 72" 8 Step.

All are made in 18" 20" or 24" width. Send for Circular No. 53-N and prices on these ladders and our full line of Wood Rolling Ladders.

Manufactured by

I. D. COTTERMAN

4535 N. Ravenswood Ave. Chicago 40, Ill.

National Safety News, September, 1954

"Straight from the Shoulder About Workmen's Compensation," and the other, a practical, down-to-earth discussion of the problem of rehabilitation. Other themes for the series were safe lifting, eye injuries and off-the-job safety.

The Industrial Round Table has for years been one of the Council's most popular projects and each year's session brings a larger attendance from the heavy industrial area of Hampden and adjoining counties. Manager Jim Williams reports a large attendance also at the council's annual awards dinner, held recently in Springfield.

Lansing Contest Changes

The Industrial Awards program of the Lansing Safety Council (Mich.) has undergone some changes, due to the need for increasing interest in the competition. In the past, awards have been presented on a competitive basis for lowest accident frequency rates.

Due to the wide variety of industries in the Lansing area, the many different types of operations and great variance in the number of manhours worked, the industry group decided to place the award program on a non-competitive basis. Awards are now presented annually to each plant that improves its accident frequency rate during the current year, as compared with the previous year.

"In this way," says Manager Harold F. Lillie of the Lansing Council, "good safety effort is fittingly rewarded and everyone is happy. Now, instead of plants competing with one another in the same general line of work, each company is actually competing only with itself to improve its own record."

Kalamazoo Reduction 65 Per Cent

In the seven years since the Kalamazoo Safety Council was organized, the industrial frequency rate in the county area served by the Council, has been reduced from 32.31, where it stood in 1947, to an annual average of 12.24 for 1953. It is significant that during the first half of 1954 there was a further reduction, bringing the cumulative rate for June down to 11.26, a reduction of 65 per cent.

Forrest E. Kimmell, safety and medical director, Sutherland Paper Co., is the new chairman of the industrial committee of the Kalamazoo Council. He is one of the pioneers for organized safety in the area and has worked untiringly for the promotion of occupational and off-the-job safety in Southwestern Michigan for many years. Kimmell also has been a leader in NSC's Pulp and Paper Section and has worked in the development of a similar project for the Michigan State Safety Conference, of which he is a member of the Board of Control.

Real Community Service

The Industrial Safety Committee of the Safety Council of the Fort Wayne Chamber of Commerce, (Ind.) recently made a thorough investigation of conditions of the Fort Wayne Junior



ABSOLUTE SAFETY—against sparks, flash, dangerous rays. Federal Specification Plates.

COMPLETE COMFORT—Light-weight, roomy, adjustable, cushioned headgear; spring pivot for easy raising and lowering.

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EYE WASHING FOUNTAIN



SAVE EYES!

OH MY EYES



Leading industrial doctors advise immediate washing with plenty of running water as the best first aid treatment for any chemical in the eyes. Records prove that washing with water for ten minutes or more, close to the accident, is necessary to reduce or eliminate eye damage.

Forehead operation leaves hands free to open eyelids so water can be directed wherever chemicals might be lodged. Sanitary white baked enamel bowl is resistant to most fumes.

Over 500 industrial plant installations have been made to date.

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VALVE Chain Operated Quick Action Self-Closing

NEW EMERGENCY SHOWER



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Special shower head, no holes to clog—can be used where unfiltered water prevails.

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CUTS AND CHEMICAL BURNS ON ARMS AND BODY

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are widely used for the safe handling of glass bottles containing harmful chemicals; also the storage and recovery of expensive serums, biologicals, and other costly products.

Painful cuts, disfiguring burns, loss of eyesight, or even a fatality, do result from corrosive liquid splash and flying glass when unprotected bottles shatter.

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Achievement Center, on invitation from the Center. The group came up with a list of 30 specific recommendations for the correction of hazardous conditions and for improving various operations in order to provide maximum safety to all personnel.

The Industrial Division had a most successful Fall and Winter season of activities, including the sponsorship of the Annual North-eastern Indiana Safety Conference and Exhibit, which drew an attendance of 2,000 safety enthusiasts from the Fort Wayne area.

Another most successful project was the organization of "Wise Owl" clubs in several Fort Wayne industries and the presentation of "Wise Owl" awards to local industrial workers who have had the sight of an eye saved by wearing safety glasses on the job. Manager Ivan Martin also reports that more than 600 supervisors attended the last Annual Foremen's Safety Institute.

Distinguished Service

—From page 40

Baltimore & Ohio Railroad Co., Baltimore. Two awards: Buffalo Div.; Eastern Region.

Bendix Aviation Corp., Scintilla Division, Sidney, N. Y.

Blackstone Valley Gas & Electric Co., Pawtucket, R. I. Entire company.

Boston and Maine Railroad, Boston. Entire company.

Canadian Pacific Railway, Maine Unit.

Celanese Corp. of America, Rome (Ga.) Unit.

Central Power and Light Co., Corpus Christi, Tex. Entire company.

Charleston & Western Carolina Railway Co., Augusta, Ga. Entire company.

Chattanooga Gas Co. Entire company.

Chicago Raw Hide Manufacturing Co., Elgin (Ill.) Div.

Chicago & Western Indiana Railroad Co., Chicago. Entire company.

Chicago, Milwaukee, St. Paul & Pacific Railroad Co. Entire company.

Cincinnati, Newport & Covington Railway Co. Entire company.

Cleveland Transit System. Entire company.

The Colorado & Southern Railway Co., Denver. Entire company.

Conemaugh & Black Lick Railroad Co., Johnstown, Pa. Entire company.

Consumers Public Power District, Columbus, Neb. Entire company.

The Denver and Rio Grande Western Railroad Co., Maintenance of Equipment Department. System.

The Dixie Traction Co., Covington, Ky. Entire company.

R. R. Donnelley & Sons Co., Chicago. Entire company.

E. I. du Pont de Nemours & Co. Seven awards: Edge Moor Plant; East Chicago Works; Grasselli Works; Newport Plant; Hotel du Pont; Repauno Construction; Sabine River Construction.

East Ohio Gas Co., Cleveland. Entire company.

Fairbanks Morse & Co., Beloit (Wis.) Works.

Florida Power Corp., St. Petersburg. Entire company.

Food Machinery and Chemical Corp., Ordnance, San Jose, Calif.

Ford Motor Co., Frame and Cold-heading Plant.

Gas Service Co., Kansas City, Mo. Entire company.

General Electric Co. Two awards: Providence Base Works; Spe-

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COSTLY SLIPPING ACCIDENTS



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Godfrey L. Cabot, Inc., Charleston, W. Va. Entire company.
Goodyear Tire & Rubber Co., Akron, Tubes Div.
Greater Winnipeg Transit Commission, Winnipeg, Canada. Entire company.
Harbison-Walker Refractories, Inc., Hays Laboratory, Pittsburgh.
Herring Hall Marvin Safe Co., Hamilton, Ohio. Entire company.
Industrial Rayon Corp., Painesville (Ohio) Unit.
Interstate Power Co., Dubuque, Iowa. Entire company.
Kansas City (Mo.) Power & Light Co. Entire company.
Kansas Gas & Electric Co., Wichita. Entire company.
Kennecott Copper Corp., Ray Mines Division, Ray, Ariz.
Kimberly-Clark Corp. Two awards: Neenah (Wis.) Mill; Technical Research Laboratories, Neenah.
Lynchburg Transit Co., Lynchburg, Va. Entire company.
Maxon Construction Co., Inc., Dayton. Entire company.
The Mead Corp., Chillicothe, Ohio. Four awards: Brunswick (Ga.) Pulp & Paper Co.; Columbian

Div., Bristol, Va.; Harriman (Tenn.) Div.; Kingsport (Tenn.) Div.
Milwaukee & Suburban Transport Corp. Entire company.
Minneapolis, St. Paul & Sault Ste. Marie Railroad Co., Minneapolis. Entire company.
Nashville, Chattanooga & St. Louis Railway Co. Entire company.
The New Jersey Zinc Co., Palmerston, Pa.
New York Central System, Peoria and Eastern Unit.
New York State Natural Gas Corp., Pittsburgh. Entire company.
The Ohio Power Co., Canton. Entire company.
Pacific Gas & Electric Co., San Francisco. Entire company.
Philadelphia Electric Co. Entire company.
Phoenix (Ariz.) Division of Transportation. Entire company.
Pittsburgh Plate Glass Co. Two awards: Columbia Southern Chemical Corp., Corpus Christi, Tex.; Lake Charles Plant.
Pittsburgh Railways Co. Entire company.
The Pusey & Jones Corp., Wilmington, Del. Entire company.

—Next page



FEWER ACCIDENTS, FASTER WORK WITH WACO SCAFFOLD JACKS

A safe, secure working platform for all "off-the-floor" maintenance jobs can be set up in seconds with Waco Scaffold Jacks.

Dual purpose heads accommodate either planks or stringers. Engineered design gives rigid support yet is lightweight, adjustable and folds for easy storage. High carbon steel construction eliminates replacement costs.

Available in four standard sizes for reaching work up to 17' 6" from the floor.

Write for new Waco Scaffold Jack Catalog SJ-1, or see your nearest Waco Scaffolding Engineer.

SALES • RENTALS • ESTIMATES

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3572 Wooddale Ave. • Minneapolis 16, Minn.
WORLD'S FASTEST SCAFFOLDING

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Los Angeles

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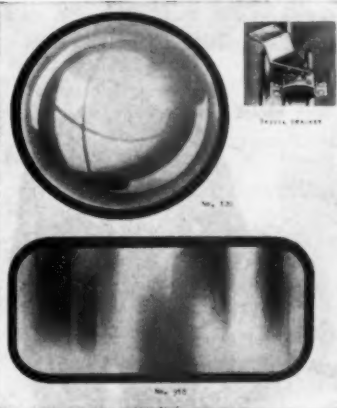
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WHY RISK A TRAFFIC ACCIDENT IN YOUR PLANT

Because of Blind Corners



Klear-Vu Safety Mirrors for Industrial Use

• Klear-Vu Safety Mirrors are designed for use in factories and warehouses where blind corners, cross aisle intersections, entrances and exits present a safety problem because of traffic accidents.

• Mounted at a height of 8 to 10 feet, Klear-Vu Safety Mirrors clearly reflect the movement of oncoming floor traffic from opposite direction—thereby removing principal cause for collisions.

• Mirrors are easily installed and adjustable for any desired angle. They are also adaptable for outdoor use.

Style	No. Dimensions
Circular Convex Glass	120 12" Dia.
Circular Convex Glass	180 18" Dia.
Circular Convex Glass	240 24" Dia.
Flat Glass Rectangular	918 9' x 18"
Flat Glass Rectangular	1640 16' x 24"

Write for bulletin:

•
Lester L. Brossard Co.
540 N. Michigan Ave.
Chicago 11, Ill.

**FOR
COMPLETE
PROTECTION
AGAINST ...**



Protective Clothing
by *Sawyer*

Wears like iron — takes endless rubbing, scraping, snagging, and still gives full protection.

100% Waterproof — made with top quality base fabric saturation-coated first and then coated with 6 coats of Neoprene Latex.

Positively will not blister, crack or peel. Its longer lasting quality means greater economy.

Also: Three-quarter and long coats, aprons, coveralls and many other styles. All clothing made in black or yellow.



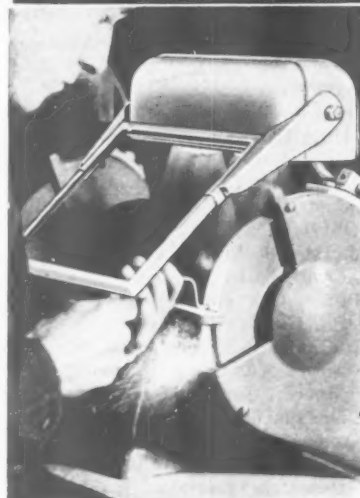
Cambridge, Massachusetts

Radio Corp. of America, Engineering Products Div., Los Angeles.
Rheem Manufacturing Co., Sparrows Point, Md. Unit.
Richmond, Fredericksburg & Potomac Railroad Co., Richmond, Va. Entire company.
Rio Grande Valley Gas Co., Brownsville, Tex. Entire company.
San Antonio, Texas, City Public Service Board. Entire company.
Sealright Co., Inc., Kansas City (Kans.) Branch Plant.
Schenley Distillers, Inc., Lawrenceburg (Ind.) Unit.
Solar Aircraft Co., San Diego (Calif.) Plant.
South Carolina Electric & Gas Co., Columbia and Charleston Div.
South Jersey Gas Co., Atlantic City. Entire company.
Southwestern Public Service Co., Amarillo, Tex. Entire company.
The Taft-Pierce Manufacturing Co., Woonsocket, R. I. Entire company.
The Texas and Pacific Railway Co., Marshall Shop.
Trans-Canada Air Lines, Montreal. Entire company.
Philadelphia Gas Works. Entire company.
United Gas Pipeline Co., Shreveport, La. Entire company.
Waco (Texas) Transit Co. Entire company.
West Pennsylvania Power Co., Pittsburgh.
Wisconsin Public Service Corp., Green Bay. Entire company.

**CERTIFICATES OF
COMMENDATION**

Appalachian Electric Power Co., Kingsport (Tenn.) Utilities, Inc.
Consumers Cooperative Association. Refining Department, Scottsbluff, Neb.
The Denver and Rio Grande Western Railroad Co., Special Service Department. System.
Food Machinery and Chemical Corp. Two awards: Executive & Sales Office, San Jose, Calif.; Westvaco Chemical Division, New York.
Housatonic Public Service Co., Derby, Conn. Entire company.
Interstate Power Co., Dubuque, Iowa. Entire company.
Island Telephone Co., Ltd., Halifax, N. S.
Kimberly-Clark Corp., Staff Engineering Department, Neenah, Wis.
Lake Superior District Power Co., Ashland, Wis. Entire company.
U. S. Dept. of Agriculture. Two awards: Chequamegon National Forest, Park Falls, Wis.; Wayne-Hoosier National Forest.

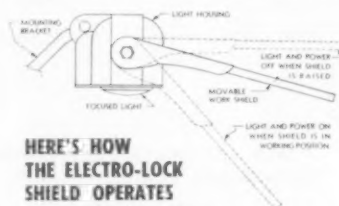
**JUNKIN
ELECTRO-LOCK SHIELD**



The Shield Which

Commands Operator Safety

The position of the Junkin Electro-Lock Shield is controlled by mercury switches. Interlocking power and light circuits will not permit the machine to operate unless the shatter-proof shield is in a completely protective position. Affords perfect visibility, and protects the operator from flying particles. Write for free bulletin No. 103.



**HERE'S HOW
THE ELECTRO-LOCK
SHIELD OPERATES**

—permits clear view of work, still providing maximum protection

JUNKIN
SAFETY APPLIANCE CO.
101 S. FLOYD ST.
LOUISVILLE 2, KENTUCKY



Safety Library

—From page 64

Kincaid. *Journal of the American Medical Association*. July 3, 1954. p. 889.

Noise

Some Practical Aspects of Industrial Noise Measurement. By Lewis J. Proulx, Jr. A.M.A. *Archives of Industrial Hygiene and Occupational Medicine*. June, 1954. p. 496.

Oil Burners

Controls, Auxiliaries, Safety Devices for Rotary Oil Burners. By Wm. W. Gaylord. *Plant Engineering*. July, 1954. p. 124.

Pesticides

Pesticide Formulations, a Selected Aromatic Fraction Naturally Occurring in Petroleum as a Pesticide Solvent. By Franklin C. Nelson and George W. Fiero. *Agricultural and Food Chemistry*. July 7, 1954. p. 735.

Poisonous Plants

Poison Ivy, Poison Oak, and Poison Sumac. By William N. Piper. *American Journal of Nursing*. July, 1954. p. 814.

Trucks

Lift Truck Stability. By Harry G. Meister. *Supervision*. July, 1954. p. 10.

Walkways

In Tank Truck Loading—Collapsible Walkway Adds Safety. By C. T. Turner, Jr. *Plant Engineering*. July, 1954. p. 94.

In Tank Car Loading—Safety Walkway Is Retractable. By C. E. Kemp. *Plant Engineering*. July, 1954. p. 95.

Calendar Contest Winners For July

First prize in the National Safety Council's Safety Calendar Contest goes this month to James Marsh, Quaker Oats Co., Cedar Rapids, Iowa. The theme in this contest was stop accidents—help the other fellow. Mr. Marsh's line was adjudged the best of all those submitted. It was:

Proved tots and pans need watching from you.

Second prize went to Jesse H. Long, TVA-Construction Dept., Chattanooga, Tenn., for this line:

Put pot handles where Mama ought to.

Third prize was awarded to Mrs. E. J. Kalney, U. S. Rubber Co., Los Angeles, Calif., for the following line:

May change Sue's "B'lah-blah-blah" to "Boo-Hoo!"

The July limerick was:

"Blah-blah-blah," chattered phone-talker Sue.

"Did I tell you what Joan's going to do?"

*Meanwhile, little Joan,
In the kitchen alone*

Thirty \$5 awards were issued to:
T. A. Brennan, Chrysler Corp., Detroit, Mich.

Harry Krug, Kansas City, Mo. (Individual Member)

Andy S. Thomas, Akron Fire Dept., Akron, Ohio

Mary R. Garner, Indianapolis, Ind. (Individual Member)

Blas Urquidez, U. S. Potash Co., Carlsbad, N. M.

Mrs. H. W. Guenther, Northeastern State College, Tahlequah, Okla.

George A. Larson, Minnesota Dept. of Highways, St. Paul, Minn.

J. E. Comstock, U. S. Steel Corp., Duluth, Minn.

Henry Josephs, Gardenville, Pa. (Individual Member)

Mrs. Jack De Leury, Bendix Products Div., South Bend, Ind.

Mrs. Jeanie Adam, The Steel Company of Canada, Ltd., Hamilton, Ontario, Canada

O. F. Reynaud, Hughes Tool Co., Houston, Texas

Jackie Miller, Stanolind Oil Co., Ft. Worth, Texas

Arthur V. Long, Tulsa, Okla. (Individual Member)

Mrs. B. M. Vastine, Jr., Sohio Petroleum Co., Latonia, Ky.

Mrs. G. F. Vaught, Hughes Tool Co., Houston, Texas

Mrs. F. A. Niver, Omaha, Nebr. (Individual Member)

Joseph H. Cameron, Worcester County Electric Co., Worcester, Mass.

E. T. Middleswarth, Pittsburgh Plate Glass Co., Creighton, Pa.

Mrs. Mary McCullough, Timber Products Co., Medford, Ore.

Mrs. Margaret B. Collins, Bradford City School District, Bradford, Pa.

Mrs. Ned Fish, University of Missouri, Columbia, Mo.

Trevor T. Crawford, Col-Tex Refining Co., Colorado City, Texas

O. A. Walker, Delco Products, Dayton, Ohio

Ivan Herring, Dow Chemical Co., Midland, Mich.

Mrs. Edith E. Morgan, Blairstown, N. J. (Individual Member)

George Yensco, E. I. du Pont de Nemours & Co., Gibbstown, N. J.

Mrs. C. H. Bowlen, Haverhill, Mass. (Individual Member)

Mrs. Fred Gruelle, U. S. Army, New Haven, Ind.

Albert Mombourquette, Dominion Iron & Steel Ltd., Sydney, Nova Scotia, Canada

When, Where, and How
TO PROTECT THE

FALL GUY

FROST'S 15 POINT SAFETY CHECK

- | | | |
|---------------------------------------|--------------------------------------|--|
| <input type="checkbox"/> Steps | <input type="checkbox"/> Approaches | <input type="checkbox"/> Ladders |
| <input type="checkbox"/> Traffic Ways | <input type="checkbox"/> Washrooms | <input type="checkbox"/> Elevator Floors |
| <input type="checkbox"/> Sidewalks | <input type="checkbox"/> Inclines | <input type="checkbox"/> Observation Platforms, Etc. |
| <input type="checkbox"/> Showers | <input type="checkbox"/> Aisles | |
| <input type="checkbox"/> Man Lifts | <input type="checkbox"/> Deck Plates | |
| <input type="checkbox"/> Landings | <input type="checkbox"/> Catwalks | |



PAINT ON SURE-FOOT^{NON SLIP} ABRASIVE PAINT

Whenever you have a problem of safety . . . inside or out . . . regardless of the shape or size of the danger spot . . . you eliminate the hazard when you paint on SURE-FOOT. SURE-FOOT applies easily . . . like ordinary paint; dries quickly . . . to a hard, skid-proof, protective surface; lasts longer. Available in 5 attractive colors: red, green, black, gray, and traffic yellow.

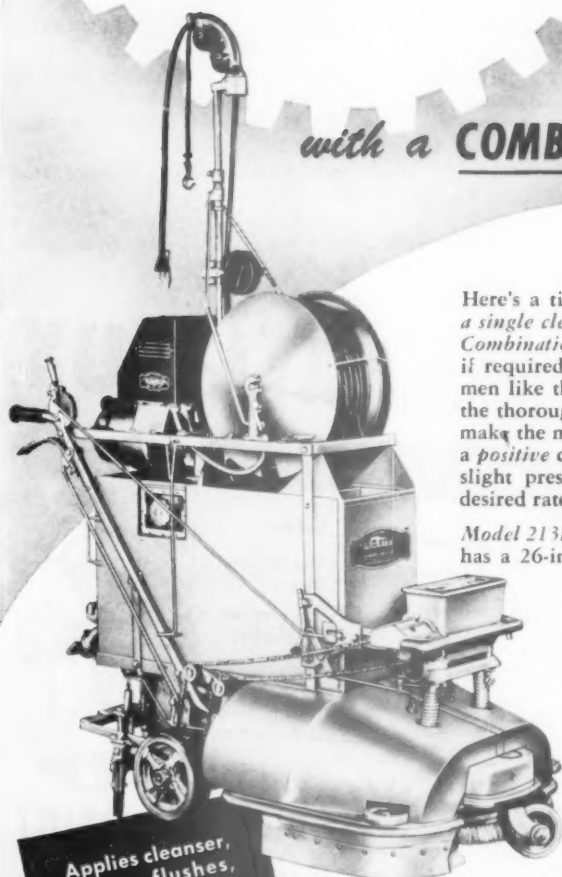
You could be the "Fall Guy" in your plant! Reduce the hazard in your plant now. Write for the new SURE-FOOT bulletin No. 3-2.



Frost PAINT & OIL CORPORATION
MINNEAPOLIS 13, MINNESOTA

MECHANIZE 4 Scrubbing Operations into 1

with a **COMBINATION SCRUBBER-VAC!**



Applies cleanser,
scrubs, flushes,
and picks up—in
ONE operation!

Here's a timely answer to the need for reducing labor costs — a single cleaning unit that completely mechanizes scrubbing. A *Combination Scrubber-Vac* applies the cleanser, scrubs, flushes if required, and picks up — *all in one operation!* Maintenance men like the convenience of working with this single unit . . . the thoroughness with which it cleans . . . and the features that make the machine simple to operate. It's *self-propelled*, and has a *positive clutch*. There are no switches to set for *fast or slow* — slight pressure of the hand on clutch lever adjusts speed to desired rate. The powerful vac performs quietly.

Model 213P at left, for heavy duty scrubbing of large-area floors, has a 26-inch brush spread, and cleans up to 8,750 sq. ft. per hour! (Powder Dispenser and Level Cable Wind are optional.) Finnell makes *Scrubber-Vac Machines* for small, vast, and intermediate operations, and in gasoline as well as electric models. From this complete line, you can choose the size and model that's exactly right for *your job* (no need to *over-buy* or *under-buy*). It's also good to know that you can lease or purchase a *Scrubber-Vac*, and that a *Finnell Floor Specialist and Engineer* is nearby to help train your maintenance operators in the proper use of the machine and to make periodic check-ups. For demonstration, consultation, or literature, phone or write nearest *Finnell Branch* or *Finnell System, Inc.*, 2209 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.

FINNELL SYSTEM, INC.

Originators of Power Scrubbing and Polishing Machines



BRANCHES
IN ALL
PRINCIPAL
CITIES



NEW SAFETY EQUIPMENT for INDUSTRY

Further information on these new products may be obtained by writing direct to the manufacturer or by circling the corresponding item number on the Reader Service Postcard.

Electric Hand Dryer

Especially designed for recessed installation in public washrooms, this new electric hand dryer projects only 3¾ inches from the wall. The dryer is installed in a steel box set into the wall during construction or remodeling.

The manufacturer points to the following features: increased air velocity resulting in a reduction in drying time, permanent type air fil-



ter that can be cleaned without removing, touch-action starter bar, revolving air-jet baffle for face and forearm drying, and illuminated user instructions.

Electric-Aire Engineering Corp., 209 W. Jackson Blvd., Chicago 6. (Item 1)

Combustible Gas Detector

A new type of instrument has been developed to locate gas leaks from underground pipelines. Called the Gascope, the instrument incorporates two separate principles of combustible gas detection, and can analyze a complete range of gas concentrations, below and above the explosive limits. The controls are simple, and the instrument is lightweight and compact.

For measurement of gas concentrations below the lower explosive limit, the instrument utilizes the combustion principle—gas in the sample is burned on a detector filament which forms part of the balanced electrical circuit. The unbal-

ance, as shown on a meter, is in direct proportion to the concentration of gas present in the sample.



To measure higher concentrations, the thermal conductivity principle is employed. This involves use of another filament which also forms part of a balanced electrical circuit. The higher heat conduction rate of gas surrounding the filament serves as the index of concentration percentage.

A single switch is used to change from one range to the other, and there are no valves which have to be coordinated with switch operation and the gas samples. The unit is powered by flashlight dry cell batteries.

Mine Safety Appliances Co., Braddock, Thomas & Meade Sts., Pittsburgh, Pa. (Item 2)

Truck Crane

A new, self-contained materials-handling crane for trucks has just been announced. It is said to convert any standard truck into a dual-purpose hauling and handling unit. The unit itself, called a Truck-Crane, will lift up to 5,000 pounds



at one time, swing it onto the truck, lift it off, and spot it within a 16 foot, 280° radius of the truck.

The unit takes only 18 inches of space behind the truck cab. When unloading, hydraulically controlled outriggers stabilize the truck. Controls for boom, winch, carriage, and outriggers may be operated from control panels on both sides of the truck. One hand lever reverses, locks or operates the winch at the speed desired. All power movements lock automatically when levers are released.

Two models are available: The HB-50 (illustrated) horizontal boom provides optional boom lengths up to 16 feet. The EB-50 equipped with a telescoping elevating boom provides extensions up to 22 feet.

Truck-Crane, Inc., 130th & Halsted Sts., Chicago 27. (Item 3)

Coupling Pin for Scaffolds

The new "Easy-ON, Easy-OFF" coupling pins are now standard equipment on all Ezebuilt steel-panel scaffolding. The fluted design of these pins is said to speed dismantling operations by preventing "freezing" of the panel legs around the pins. The design of these malleable iron castings provides a rigid connection and positive bearing surface on the panel legs.



Universal Manufacturing Corp., Zelienople, Pa. (Item 4)

Waterless Hand Cleaner

Called the Ply waterless hand cleaner, this new product is described as a non-alkaline with a pH 6.0-6.5 close to that of normal skin. The product is said to be free of solvents, ammonia and caustics. A special emollient is used to prevent defatting of the skin.

The hand cleaner is non-flammable, and is harmless to rubber and fabric gloves.

The Milburn Co., 3246 E. Woodbridge Ave., Detroit 7, Mich. (Item 5)

Emergency Light

Identified as model PC-40, this unit is designed to provide automatic emergency illumination in buildings where sudden power failure could have serious results.

Rated at 128 candlepower, the unit may be obtained with standard No. 4013 sealed beam lamps or



built-in chrome or floor reflectors with any combination of 6 volt lamps of 15, 21, 32 or 50 candlepower. Lighting heads may be mounted directly on the unit or in a remote position.

The unit is powered by a nickel cadmium battery, and includes built-in battery charger for both automatic trickle charging and 3-ampere, switch-controlled fast charging.

Dual-Lite Co., 186 Front St., Bridgeport 6, Conn. (Item 6)

Hydraulic Utility Hoist

A new electrically powered hydraulic "utility" hoist with a lift capacity of 2,000 pounds is said to lift loads twice as fast as a manually powered hoist or crane, and it is



changeable from a mobile shop mounting.

The hydraulic system is rated at 5,000 p.s.i. and provides power to lift a 1,000 pound load 8 feet, a 1,500 pound load 6-½ feet, or a 2,000 pound load 4 feet. The 6-volt motor is battery powered.

Unit Manufacturing Co., 1229 Harmon Place, Minneapolis 3, Minn. (Item 7)

Welders' Helpers' Goggles

Made of a new light-weight formula plastic with an ultra-violet ray inhibitor, these new goggles are designed to be worn as flash goggles



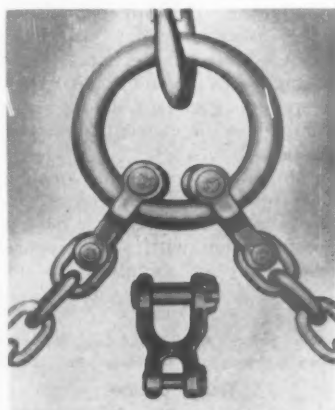
by welders' helpers, or by spot welders. The new plastic is said to overcome fogging, crazing and brittleness.

Two models are available: The CESCO No. 548-G has a round rubber headband, while No. 549-G has a flat elastic or rubber headband. Both are said to be excellent for outside use, and are made in cover goggle style so they can be worn over personal glasses.

Chicago Eye Shield Co., 2300 W. Warren Blvd., Chicago 12 (Item 8)

Connecting Link for Slings and Hitches

A new connecting link for on-the-job connection of chain to rings, end links, shackles and eyes in pre-



paring slings and hitches has been announced. Called the Double Clevis Link, it consists of two clevises joined back to back with heat treated pins for extra strength. This new fitting makes it possible to prepare slings and hitches in the field using only a pair of pliers or a screw driver. All that is required is to remove the cotter and bearing pins, attach the clevis and replace the pins. Hands are protected by a specially designed cotter guard. The new link is made for chain sizes: ½ inch, ¾ inch, 1 inch, 1½ inch, 2 inch.

Thomas Laughlin Co., 33 Fore St., Portland, Maine (Item 9)

Work Gloves

The "Coronet" and the "Coronet Safety" are two new leather palm work gloves that have been added to the line of Riegel Textile Corp. Both gloves are made of selected top grain cowhide, tanned to avoid stiffness. The Gunn pattern, which provides full leather continuous thumb, leather tips, waterproof safety cuff with pull, knuckle strap, and elastic back strap, allows full freedom of finger movement. The "Coronet" has the same construction as the "Coronet Safety," but a waterproof gauntlet cuff is substituted for the regular safety cuff.

Riegel Textile Corp., 260 Madison Ave., New York 16. (Item 10)

Air Control Valve for Presses

Called the "Lifeguard," this new air control valve for presses has been designed to shut itself off when the valve mechanism does not operate normally.

The "cut-off" unit is attached to the pilot section casting. This cuts off the air supply to the pilot section in case of failure of any valve part. The valve cannot be actuated again until an authorized person breaks the seal on the recock unit, inspects the valve and makes the necessary adjustments or replacements. The new valve, an AC solenoid, pilot-operated, three-way model, consists of two valves in a common housing combined with a cut-off unit. It has a single inlet port, a single cylinder or out port, and two interconnected exhaust ports.

There are two pilot sections with a common air supply, but with individual exhaust ports and solenoids. According to the manufacturer, the "Lifeguard" is capable of operation

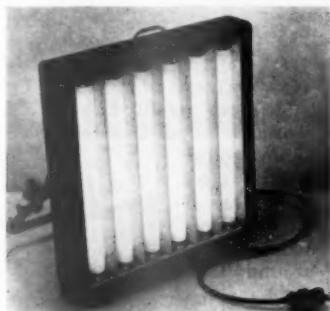


up to 600 cycles per minute. Main valve pressures range from 30 to 125 psig air, with pilot pressure of 40 to 125 psig air. Maximum temperature is 175° F. The inlet pipe is ¾ inch and the weight 14 pounds.

Ross Operating Valve Co., Dept. 3802, Detroit, Mich. (Item 11)

Portable Fluorescent Floodlight

This portable floodlight contains 6 standard 15-watt fluorescent tubes made for 110-volt AC service. The unit is designed for either indoor or outdoor use, and is contained in a 21 by 21 inch pressed steel case with a clear plastic window. UL ap-



proved, the floodlight has a 12-foot greaseproof, waterproof cord, and a separate switch for zero weather starting. There is a convenient carrying handle so that the unit may be moved to the point of use, or it may be wall-mounted for semi-permanent lighting.

Electric Cord Co., 195 William St., New York 38. (Item 12)

Jib Crane for Handling Power Poles

Designed especially for use in power company storage yards, this new jib crane can be used to move power poles and transformers—items that normally require a minimum of five men to load and unload.

According to the manufacturer, the jib crane can do the job with three men in about 10 per cent of the time. Use of this mechanical manipulator permits the stacking of poles and racks, conserving storage area. The capacity of the crane is two tons. It is power operated in all directions from controls at the oper-



ator's seat. Over-all length of crane is 48 feet. From center to end of boom is 32 feet, and total lift is 18 feet. The trolley travels a distance of 14 feet at the end of the boom, providing additional flexibility in working.

Craneveyor Corp., 1240 S. Boyle Ave., Los Angeles. (Item 13)

Face Shields

These Clip-On and Swing-Back face shields have been designed to provide eye and face protection for wearers of hard hats and caps.

Made of Lumerith acetate, the Clip-On shield is secured by spring steel clips that may be pushed over the brim of any safety hat or cap without drilling holes or adding special attachments. It is especially suited for the worker who wishes face protection occasionally and without the added weight of permanent type shields. The Swing-Back model is for workers who need face protection frequently. This shield is attached to the hard hat



by drilling and bolting to the brim. The light weight extrudant aluminum hinged bracket swings easily to any desired angle or to an overhead position when not in use. Both shields are heat formed to permanently hold their shape, and are available in varying lengths. All shields are sealed in Plyofilm envelopes to protect against scratching when not in use.

E. D. Bullard Co., 275 Eighth St., San Francisco 3. (Item 14)

Bulletin Boards

Constructed of Philippine mahogany, with high gloss lacquer finish, this new line of bulletin boards



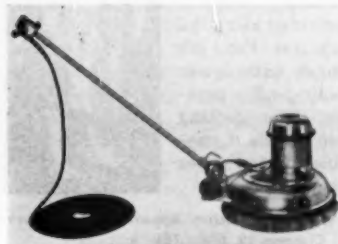
is especially suitable for the permanent display of posters and other safety promotional materials. Style No. 70 measures 28 by 35 by 4 inches. It has a cork posting service and a hinged glass door.

The sign panel is of white opaque plastic and may be furnished with any desired wording. A concealed fluorescent tube provides light through the sign panel and over the entire inner area. Flush type boards of the same materials are also available in both standard and special sizes.

Industrial Products Co., 2850 N. Fourth St., Philadelphia 33. (Item 15)

Floor Cleaning Machine

A new heavy-duty floor machine with a 22-inch diameter brush, the K-22, is powered by a 1 hp. motor counter-balanced by a handle weight to minimize the sidewise pull. This design, according to the manufacturer, reduces operator fatigue, prolongs brush life, and produces full all-weight-on-brush efficiency. Heavy grease accumulations can be dry-scrubbed with a special multiple brush which is self-cleaning and self-sharpening and consists of five individual brush units mounted on



ball bearings. The machine can also be used for wet scrubbing. The motor is fully enclosed and is dust- and water-proofed. An adjustable handle can be quickly changed to suit the height of the operator.

Kent Company, 181 Canal St., Rome, N. Y. (Item 16)

Dust Collector

Designed especially for control of dusts from individual machines or those remotely located from a general dust control system, the model 5N20 "Dustkop" is rated at 558 cfm on a 4 inch inlet. A multiple blade paddle wheel fan of the self-clearing type permits the collector to be used even where dusts having fibrous content of considerable length are present. The unit is powered by a 1/3 hp. motor.

Dust, centrifuged out by the cyclone separator which is an integral part of the unit, is retained in the

dust compartment which comprises the entire base of the collector. The cleaned air, together with any gases, smoke and obnoxious odors, is exhausted outdoors through the 6-inch diameter exhaust connection at the top of the cyclone. Caster bearings can be mounted for portability, and clamps are available for connecting to dust source and to exhaust outlet at any one of several locations.

Aget-Detroit Co., Ann Arbor, Mich. (Item 17)

Heat Reflective Clothing

A new line of aluminized asbestos clothing includes complete firemen suits, gloves, leggings, sleeves, aprons, helmets and other items where a high degree of protection from heat and radiant energy is required.

The new line is made from heringbone weave tropic weight asbestos with aluminum coating. The garments are pliable, and resist abrasion. The manufacturer claims that the coating reflects 90 per cent of all radiant energy, making it possible for workers to stay on the job longer with fewer cooling-off periods. The coating also makes it possible to use lighter weight asbestos.



Wheeler Protective Apparel, 224 W. Huron St., Chicago 10. (Item 18)

Inflatable Splint

A new type splint for fractures and other injuries of the lower extremity, including hip fractures, is made up of Krene plastic that rolls up for carrying and inflates quickly for use. Light-weight and moisture-



resistant, the plastic washes clean with a damp cloth.

The splint includes aluminum supporting bars, a detachable U-

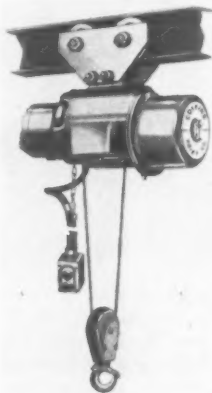
shape bar and a rawhide loop for providing traction, a Pierson attachment for foot support, and a waxed cord which is tightened over two rows of hooks to hold the splint in place. It may be inflated by mouth, bicycle or hand pump before the extremity is placed in the splint and immobilized by tightening the waxed cord over the hooks. Longitudinal air chambers keep the splint straight while a transverse chamber at the bottom keeps the heel elevated.

Bakelite Co., Div. of Union Carbide and Carbon Corp., 260 Madison Ave., New York 16 (Item 19)

Electric Hoist

Ranging in capacity from 500 to 4,000 pounds, the new "Quik-Lift" electric hoists offer a range of lifting speeds and types of suspension.

New features stressed by the



manufacturer include: push-button control, large separate load and motor brakes, a safety limit switch. Safety hooks with under spring tension securely hold the latch in place. The latch fits snugly over the point of the hook with no points or projections to snag on wires, ropes or other objects. Slight pressure on a release unlocks the latch, and spring tension holds it open.

Coffing Hoist Co., Danville, Ill. (Item 20)

Fire Fighting Device

A new device called the Proportioner can be attached to the 2-1/2 inch discharge gate of a pumper to produce Airfoam for extinguishing gasoline, oil or grease fires. It has been designed to draft 6 per cent foam solution, or by use of an adapter, will draft 3 per cent solution. A wetter water metering device is a separate part of the unit, and has two positions, one for drafting "wetter water" solution for extinguishing ordinary combustible type fires, and one for drafting Airfoam liquid

for flammable liquid fires. The unit, is capable of producing 600 gallons of Airfoam per minute.

American-LaFrance-Foamite Corp., 100 E. LaFrance St., Elmira, N. Y. (Item 21)

Industrial Rubber Boot

The Carbon Boot has been designed especially for the fishing industry, refrigeration warehousing, slaughter houses and other work where waterproof comfort and foot protection are required.

It features a built-in steel toe and is reinforced at all points of strain. It has a black chevron cleated outsole, all-around foxing and a molded heel. Duck lined with a sponge cushion insole, the boot is available in hip and short lengths, sizes 6 to 14.

Tyer Rubber Co., Dept. 22, Footwear Div., Andover, Mass. (Item 22)



Tool Bags for Transmission Line Work

This insulated tool bag has been designed for use in hoisting and lowering tools, insulators, paint and other supplies used by transmission line workers. Manufactured of No. 2, heavy weight white duck, the bag has a one-piece fibre collar top and a leather bottom. The collar is made of vulcanized stock which is rolled into four thicknesses to provide strength and rigidity and specially treated for added resistance to moisture and weather. A pocket is provided on the inside for small tools, screws, nuts and bolts, and has a gusset design for easy access. The handle is of manila rope treated for outdoor use. Size is 12 inches in diameter by 15 inches high. There are no metal parts to come in contact with electric current.

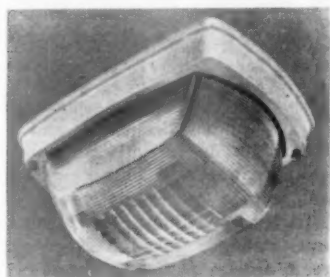
Industrial Products Co., 2850 N. Fourth St., Philadelphia 33. (Item 23)

Corridor Lighting Unit

The new Holophane Luminaire model No. C-824 provides glare-free lighting so that corridor traffic areas will have safe illumination conditions up to the standards of commercial and industrial interiors.

This is achieved through a "three-dimensional" control redirecting useful light in all directions—up to the ceiling and across to the walls,

as well as down to the floor. Balanced illumination with high visi-



bility is due to the specially engineered prismatic glass refractor bowl.

Holophane Co., Inc., 342 Madison Ave., New York 17. (Item 24)

Two-Way Intercom

This new paging system combines sound paging with two-way intercommunication. It permits roving personnel to be located in seconds, and enables them to answer a page call immediately from any point in the building. The system is especially useful where machinery failures or other emergency situations require fast communication among supervisory and maintenance personnel. Group conversations are possible.

The system consists of any required number of handset stations, wall-mounted or desk-type; re-entrant trumpet-type industrial reproducers and a control rack which provides amplification and communi-



Handset Station (Wall Mounted)

cation facilities for the system. The wall-mounted hand stations are equipped with paging button for originating calls over all reproducers in the system. A red "busy" signal illuminates when the system is in use. The trumpet-type reproducers are 21 inches long with 20 inch ball diameter, and are provided with adjustable bracket for wall, ceiling or pillar mounting. In hazardous areas,

explosion-proof trumpets can be installed.

Executone, Inc., 415 Lexington Ave., New York 17. (Item 25)

Organic Vapor Respirator

This new respirator which can be fitted with auxiliary cellulose filters to prevent clogging of cartridges during paint spraying has just been announced. The filters are placed over the respirator's regular car-



tridges and held securely in place by screw-type cartridge retaining rings. No tools are needed to attach or replace either the auxiliary cellulose filters or the 85 cc high absorptive capacity, free-breathing cartridges. Known as the CESCO No. 99 respirator, it has a soft rubber facepiece which provides a snug, leakproof fit with minimum headband tension. It rests low on the face and does not interfere with eye protective equipment.

Chicago Eye Shield Co., 2300 Warren Blvd., Chicago 12. (Item 26)

Bronze Chain Pipe Wrenches

Available in four sizes, these new pipe wrenches have beryllium copper jaw inserts which are reversible and interchangeable to give longer service and gripping ability.

The entire wrench is made of Ampco metal which is spark-resistant, corrosion-resistant and non-magnetic. Individual wrenches are available for pipe having the following size ranges: $\frac{1}{8}$ to $1\frac{1}{2}$ inch, $\frac{1}{4}$ to 2- $\frac{1}{2}$ inch, $\frac{3}{4}$ to 4 inch, and 2 to 12 inch.

Ampco Metal, Inc., 1745 S. 38th St., Milwaukee 46, Wis. (Item 27)

LPG-Powered Fork Trucks

Powered by liquified petroleum gas, this new fork lift has just been approved by Underwriters' Laboratories. The LPG-Carloader is a standard model fork lift, having 3,000 to 5,000 pound capacities, and is equipped with conventional, Dynatork or Hydratork transmission, factory-modified for LPG operation. Installation of a compact fuel unit adapts the gasoline-powered fork truck for LPG.

LPG, in commercial usage, is a mixture of butane and propane under pressure. It burns clean and leaves no unburned carbon, lead compound or varnish deposit. Be-

cause it is a dry gas, there is no liquid to dilute the cylinder lubricant or crank-case oil. This results in less wear on cylinder walls and bearings, and longer life for lubricating oil.

The fuel unit consists of a heavy-duty fuel tank, vaporizer-regulator and a simple air-gas carburetor. The system draws fuel from the tank in liquid form and is vaporized before it reaches the manifold. Since the fuel is under its own pressure, there is no need for a fuel pump. A sole-



noid valve automatically opens or closes the fuel line by the ignition switch, and serves as a positive lock-off when the engine is stopped. A vacuum switch between ignition and manifold prevents fuel from being drawn into the engine until the engine is turned over.

Clark Equipment Co., Battle Creek, Mich. (Item 28)

Fire Extinguisher

The "Quick-Action" one-quart, pressurized fire extinguisher is de-



signed for use on fires of gasoline, oil and other flammable liquids, as well as fires in electrical panels, mo-

tors, and ignition systems because the extinguisher charge is a non-conductor.

A special one-hand operation and "power-discharge" is provided by stored air pressure. The extinguisher is so designed that the discharge nozzle fits all standard air chucks and a pressure gauge is provided for visual inspection of the extinguisher's charge.

The General Detroit Corp., Detroit, Mich. (Item 29)

Safety Masks for Second Helpers

Made of tropic weight asbestos cloth which has been aluminized for greater heat deflection, this new mask features an oversized plastic



vision area for greater visibility. It has a stainless steel wire ventilating screen in the rear which resists corrosion. The mounting is made of sturdy fiber frame with adjustable headgear, thus increasing the comfort for the wearer. The mask is known as SF524AT.

Safety First Supply Co., 425 Magee St., Pittsburgh 19, Pa. (Item 30)

Head and Face Dryer

This dryer unit incorporates a new heating principle which utilizes the GE Calrod heat transmission principle. Through the use of this new



principle, the "Steri-Dri" Electronic Towel can be plugged into any convenient socket as heavy wiring is not necessary. The dryer measures 14 by 18 by 9-1/2 inches and is constructed with a porcelain enamel

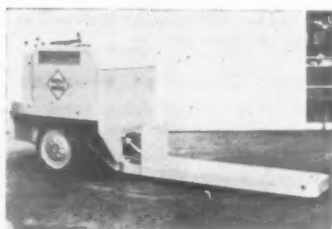
finish. Hands and face can be dried simultaneously — or individually; drying operations being controlled by push-buttons on the face of the unit. The dryer uses a 1/9 hp. motor.

Electronic Towel Corp., 342 Madison Ave., New York. (Item 31)

Platform Truck

This specially designed 6,000 pound capacity low-lift platform truck has been designed for organizations that use skids of varying heights. In many handling operations, a standard low-lift platform truck cannot be used because the truck platform is too high or the maximum lift available cannot accommodate the highest skids. The platform of this truck has a height in the low position of 7 inches which permits the handling of skids with legs only 7-1/2 inches high. The vehicle also has 10 inches of platform lift so that skids up to 14 inches can also be accommodated.

The platform is 20 by 72 inches; sizes can be varied to meet specific requirements. To accommodate the low platform position, the truck is equipped with four trailing wheels



which support the load. Wheels are mounted in tandem and are articulated for travel over uneven floors.

The Elwell-Parker Electric Co., 4205 St. Clair Ave., Cleveland 3, Ohio (Item 32)

News Items

The Rochester Safety Equipment Co., 83 Howell Street, Rochester, N. Y., has announced installation of two permanent-type display rooms which have been set up on the order of a miniature safety show where



products of leading manufacturers of safety equipment are on display.

Organized 11 years ago, this company supplies safety and fire protection equipment for both industry and the home.

* * *

Oakite Products, Inc., manufacturers of industrial cleaning and related materials, recently announced the appointment of four new technical service representatives.

Charles F. Williams, Jr., formerly plant manager for the Regal Ice Cream Co. in Denver, Colorado, is representing Oakite in the Sioux City, Iowa, territory.



James F. Driesch, a graduate of St. Francis College, Loretto, Pa., and formerly Pittsburgh distributor for F&E Checkwriters, is now serving industries in the Washington, D. C. area.



W. Berkhardt, formerly with the Eastern Tank Maintenance Company of Philadelphia, is now representing Oakite in the Norristown, Pa. area.



Hause

Berkhardt

T. V. Hause, formerly with a large paint concern, is the new representative in the food industry in Hartford, Conn.

* * *

Manufacturers of safety equipment and related materials are invited to send announcements of new products, improved features of existing products, and news relating to their organization. Only items which can be considered "news" to our readers will be published.

TRADE PUBLICATIONS IN THE SAFETY FIELD

These trade publications will help you to keep up-to-the-minute on new products and developments in industrial health and safety equipment. They are free and will be sent by manufacturers without obligation to readers of NATIONAL SAFETY NEWS who are responsible for this work. Circle publications desired on Reader Service Postcard.



1. Auto Seat Belts: Literature describes the use of safety belts installed in automobiles and trucks to help reduce injuries and deaths, by strapping the occupant to the seat, which prevents persons from hurling forward against the dash or windshield. Rose Manufacturing Co.

2. Mechanical Stirrups: An 8-page brochure explains and illustrates air and electric powered stirrups for operating swing stages. Also gives applications, specifications and rigging illustrations. Albina Engine & Machine Works.

3. Head to Foot Protection for Industrial Workers: Different kinds of work gloves, aprons, clothing, safety leggings, finger guards, safety hats, respirators, footwear, face shields and goggles are fully described and illustrated in 125-page catalog. Samples of various materials are also attached. Dunn Products.

4. Tools for Steel Drums: 8-page brochure fully describes and illustrates head cutters, chime cutters, chime straightener and sealer, bead and lock-rim press and wrenches. Michael A. Schinker Manufacturing Co.

5. Squeeze-Grip Extinguishers: This 4-page bulletin describes the advantages of an extinguisher valve which operates by squeezing between palm and fingers. The entire line of wheeled and hand portable extinguishers is shown and specifications for each model given. C-O-Two Fire Equipment Co.

6. Safety Footwear: A colorful catalog gives complete information on Safety First steel toe safety shoes. Included are color reproductions and cut-away drawings of new styles with foam-latex cushioning innersoles. Data on the regular line of work and dress shoes are also given. Safety First Shoe Co.

7. Machine Guards: Several different types of machine guards are detailed in this 16-page booklet. Perforated metal and other materials which can be used to construct guards in the user's own plant are also included. Harrington & King Perforating Co.

8. Award Systems: Service and safety award systems are outlined and discussed in this booklet. Questions as to cost, size and importance are raised and answered. Designs are suggested and the operation of the program is explained. Metal Arts Co.

9. Neoprene Soled Safety Shoes: Illustrated in this 4-page bulletin in color are the company's neoprene crepe safety soles. It covers the use of the new sole and explains its resistant qualities to slipping, oil, grease, chemicals, heat, abrasive surfaces and hard wear. Bearfoot Sole Co.

10. Burn Spray Kit: 6-page folder presents the company's burn spray kits featuring Aerosol type dispensers. The dispenser is said to cover the largest burns completely, without touching the burned area with anything but the antiseptic solution. Also included in the kit are different types of bandages, inhalants, sheeting, scissors and burn treatments. Medical Supply Co.

11. "The Control of Dermatitis in Industry": This 32-page booklet emphasizes preventive measures in a range of industries. A large chart lists various working conditions, types of dermatitis prevalent under these conditions and suggested preventive measures. West Disinfecting Co.

12. Data on Two-Lever Coordination Control: A file of application engineering data on the new two-lever coordination control is available to those concerned with safety, control and operating devices for pneumatically-actuated equipment and processes. Bulletin No. 68123 gives full details. Pantex Manufacturing Co.

13. Signs: A 6-page gate-folder price list covers signs for accident prevention, electrical and mechanical hazard warnings, directional and general information, industrial housekeeping, no smoking and fire prevention. Eastern Metal of Elmira, Inc.

14. Breathing Equipment: Central topic of this 4-page brochure is an air-breathing device composed of mask, hose, air-filled cylinder and necessary regulatory equipment. Designed for use by workers encountering fumes in confined spaces. Scott Aviation Corp.

15. Non-Skid Gratings and Treads: Catalog describes an open-mesh grating with serrated edges to give a non-slip footing for ramps, stair treads and general walkways. The catalog shows various styles available, give recommended uses. Selection chart, capacities, weights and deflections also shown. The Globe Co.

16. G-S Powdered Hand Soap: Bulletin describes hand cleaner for factory, office and home use to protect the skin and help prevent it from becoming dry and chapped. A soap dispenser also described. Great Stuff Products Corp.

17. "McKay Wrought Iron Chain and Slings": An 8-page bulletin covering specific classifications of chain and its applications. Gives complete data on sizes, specifications, link dimensions, standard finishes and other pertinent information on specific grades of fire welded wrought iron chains in 3/8 inch material diameter and larger. McKay Co.

18. Flexflyte: A lightweight, extremely flexible reinforced fabric duct is engineered for air handling, fume removal, dust collection, and materials handling. 4-page brochure describes the various types of Flexflyte, method of manufacture and method of installation. Flexible Tubing Corp.

19. "What Your Plant Can Accomplish with Vision Screening": A brochure on an occupational visual testing device. It shows how visual ability is a production factor, which employees need corrective lenses, and the effect of inadequate vision as a cause of accidents. Keystone View Co.

20. Linemen's Equipment: Catalog displays complete line of linemen's equipment including belts, "climbers," accessories, and tools. Also featured are safety tools and equipment for electricians. Miller Equipment Co.

21. Industrial Eye Protection: A catalog of various eye protection devices designed to provide maximum protection. Goggles, spectacles, face shields, welders' helmets are illustrated. Welsh Manufacturing Co.

22. "Cutting Oil Sanitation": A booklet on coolants, their sanitation, health hazards, handling, and the results of dermatitis for their use. It explains how to handle and prevent these problems. C. B. Dolge Co.

23. "Safety Clothing for Industry": A booklet illustrating various items of safety clothing to help protect the worker in industry. Range includes from gloves, mittens and arm protectors, asbestos clothing, leggings and welders' equipment. Industrial Gloves Co.

24. Marking Devices: Bulletin describes various styles of safety marking devices, and use for which each is best. Made to prevent spalling or mushrooming, and to give long service, markers may be used for many different-type jobs such as marking forging dies, giving reproductions from plastic, glass and rubber molds. M. E. Cunningham Co.

25. Modern Maintenance Catalog: A catalog designed to give assistance to builders, architects, and operators in selecting the products to cut costs. Many maintenance problems answered. Contains illustrations, and many types of products, including cleaners, waxes and finishes. Hillyard Chemical Co.

—Continued page 138



TRADE PUBLICATIONS IN THE SAFETY FIELD

These trade publications will help you to keep up-to-the-minute on new products and developments in industrial health and safety equipment. They are free and will be sent by manufacturers without obligation to readers of NATIONAL SAFETY NEWS who are responsible for this work. Circle publications desired on Reader Service Postcard.

Continued from page 137

26. Combination Scrubber-Vac: For large area scrubbing. Illustrated literature describes a single unit that applies the cleanser, scrubs, and picks up in one operation. Gives complete specifications and various methods of combination-machine scrubbing, including method recommended for cleaning oily floors. Finnell System, Inc.

27. Lifting Clamp: Literature describes a powerful drop forged clamp for raising, lowering and conveying any flat surfaced metal in raw, finished or fabricated condition, or anything that has sufficient flat surface such as plates, drums, containers, angles and structural assemblies. Merrill Brothers.

28. "How to Solve Oily Floor Problems": New manual covers every major aspect of oily floor maintenance: safety from fire hazard; safe movement of personnel and products; safe operation of machinery; prevention and correction of floor damage and deterioration. Oil-Dri Corp.

29. Steam Can Kill: Bulletin describes Hy-Test steam hose made to withstand working pressures up to 200 pounds. Reinforced with several rubber-encased plies of closely-woven braided-steel wire. Special feature is a specially-compounded steam-resistant inner tube, that keeps the outer surface cool. New York Belting & Packing Co.

30. Taylor Made Sling Chain: A bulletin presenting the features of alloy steel chain. More resistant to wear than wrought iron or low carbon steel chains, they are used in steel mills, foundries, railroad shops and in oil fields. S. G. Taylor Chain Co.

31. Protective Clothing: Catalog of asbestos and leather protected clothing. Also featured are flame-proof clothes, leg-guards, helmets, blankets, aprons, pads, gloves and mittens. Wheeler Protective Apparel, Inc.

32. Vision in Industry: Booklet that outlines and explains the step necessary to undertake a vision program. Starting with the evaluation of the employee's visual abilities, requirements of the various jobs, it explains the correct placement of workers according to the visual skills. Bausch & Lomb Optical Co.

33. Sani-Spray Goggle Cleaner: Bulletin contains information about Sani-Spray for cleaning and fog-proofing glasses and goggles. Also information on a goggle station for applying Sani-Spray. Allen Optical Co.

34. Fire Fighting Equipment: Catalog contains a listing of all types of fire fighting equipment, including personal and emergency protective equipment; fire hose, nozzle, tools, alarms, etc. Safety First Products Co.

35. Punch Press Feeds: Folder gives specifications for roll and dial feeds for all makes of punch presses and straightening machines. In addition, automatic centering reels, conveyor type coil cradles, air-blast valves and mechanical pickers are described and illustrated. F. J. Littell Machine Co.

36. Vacuum Hand-Pump: This 4-page literature discusses the specifications, use and safety aspects of a vacuum pump for the transfer of liquids. Three models are illustrated. Also are said to reduce fire hazards, keep liquids off floors, and speed up transfer in liquid handling. Tokheim Oil Tank and Pump Co.

37. Heat-Resistant Gloves: A complete line of gloves, mittens and hand pads for protection against hot objects are offered in this 4-page bulletin. The fabric is composed of hundreds of air-cell cushions that dissipate heat and ventilate the hand. Jomac, Inc.

38. Do's and Don'ts for Safe Industrial Truck Operation: 31 rules for effective, safe operation of trucks are pictured and discussed in this bulletin. Operator training suggestions are included. Photographs illustrate such unsafe practice as carrying off-center loads, carrying loads which are piled too high, etc. Elwell-Parker Electric Co.

39. Rubber Footwear: Rubbers to body boots are described in this brochure. Featured is an insulated pac to protect against extreme cold. Flexible arches, safety toes, neoprene construction, long wear, and non-skid soles and heels are qualities emphasized in the entire line of footwear. Beacon Falls Rubber Footwear.

40. Plastic Eye Protectors: An 11-page catalog illustrates and describes plastic lens glasses, goggles and face shields. Better resistance of plastic eyewear to impact, chemicals and sparks plus finer optical qualities are featured. Watchmocket Optical Co.

41. Color Dynamics: An illustrated booklet explaining how the proper use of color in plants can be the direct cause of more production, less absenteeism, lower insurance rates, and better morale among employees. Also demonstrates how greater safety is also attributed to color harmony. Pittsburgh Plate Glass Co.

42. Abrasive Floor Coating: Bulletin tells of a non-slip abrasive floor-coating in an easy-to-apply paint form in gray, red, black and green. Slipproof, economical and long-lasting, it is adaptable to all industrial use. Frost Paint & Oil Corp.

43. Better Hand Protection: Catalog illustrates Stanzoil liquid-tight all neoprene, neoprene coated and vinyl coated, protective work gloves and aprons. Pioneer Rubber Co.

44. Torches and Furnaces: Information on torches used in all kinds of maintenance work such as removing bearings, pre-heating bearing blocks, thawing frozen pipes, plumbing, electrical, general repair, soldering and includes furnaces for metal melting. Insto-Gas Corp.

45. Industrial Safety Belts: Informative illustrated catalog on many types of industrial safety belts, including window cleaners, linemen, bridge workers, and many others. Also contains information on comparison of safety properties of leather and web belts. Industrial Safety Belt Co.

46. "Don't Throw Them Away": Circular on industrial cleaning, reclaiming and processing gloves, aprons, rubber and leather goods of all types for use over and over again. Wash-Rite Co., Inc.

47. Zipper Leg Overalls and Dungarees: Bulletin features new zipper leg overalls and dungarees for industrial workers. By zipping down the pants leg, the garment leg fits neatly, snugly, safely about the ankle. The pants legs are ventilated with neat, non-rusting, ventilating grommets. Safe-Way Industries, Inc.

48. Portable High Pressure Air Compressor: The air compressor is designed to compress pure, clean air into storage tanks used with demand type breathing apparatus. Product sheet No. 5 gives full details. Cornelius Co.

49. Safety Surfacing: Catalog illustrating products for every safety-surfacing need. Tread rubber mats, frictioned rubber runners and mats, safety treads, link mats, rubber flooring, corrugated matting, shower stall mats, desk chair mats are illustrated. Melflex Products Co., Inc.

50. Safety Signs: Standard signs for all requirements are shown in this catalog. Among those pictured are: caution signs, danger signs, fire prevention signs, and miscellaneous safety signs. Stock wordings, sizes and prices are given. Standard Signs, Inc.

51. Safety Equipment and Products for Construction and Maintenance: Catalog displays complete line of linemen's equipment including belts, "Climbers," accessories, clothing and tools. Also featured are safety tools for electricians and tree surgeons. R. H. Buhrke Co.

APRONS THAT PROTECT



- Flame Resistant
- Acid Resistant
- Grease & Oil Resistant

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Welders' Curtains, Gloves, Hand Pads
for Steel and Glass Handlers.

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Write for Samples and Prices.

**ASSOCIATED
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COMPLETE PROTECTION AGAINST ATHLETE'S FOOT at moderate cost!

IMPROVED

ALTA-CO POWDER

Refinements and improvements now make ALTA-CO more quickly soluble, more agreeable generally and better to handle. Dissolved economically in water for the all-important foot bath, ALTA-CO kills in less than a minute all different species of fungi commonly found in Athlete's Foot. Non-irritating; harmless to towels.

ALTA-CO FOOT POWDER

For dusting feet after shower or other exposure to moisture.

H. D. FUNGICIDE FLOOR WASH

Diluted 1 to 300 in water, this powerful wash provides additional protection against Athlete's Foot on surfaces where fungi are commonly found.

Ask your DOLGE SERVICE MAN about money-saving offer on the DOLGE FOOT TUB.

FOR
FREE SANITARY SURVEY
OF YOUR PREMISES
SEE YOUR DOLGE SERVICE MAN

DOLGE

WESTPORT, CONNECTICUT

GE Medical Service

—From page 33

central record room, and plant physician's office.

The third floor, known as the "penthouse," is devoted entirely to mechanical equipment, principally air conditioning units.

A battery system of 64 regular wet batteries with a total capacity of 120 volts is maintained for emergency power. This system cuts in automatically in the event of failure in the regular power lines to serve the operating room and corridor lighting system.

For emergency and ambulance calls, a direct alarm system connects the clinic with the plant police station.

The building has a complete central air-conditioning system for heating as well as cooling. Each room has individual temperature controls.

Because the building is of completely fireproof construction, automatic sprinklers were installed only in areas where flammable material is stored.

While the clinic is equipped to handle almost any emergency, it is not a bed hospital. Patients severely injured or seriously ill are given emergency treatment and rushed to hospitals outside the plant.

The clinic features separate areas for treatment of skin and other infections and ear, nose and throat ailments; fully equipped operating rooms for emergencies, a laboratory for bacterial and chemical tests, a dispensary area and rooms for physical therapy and medical analysis.

The modern industrial hygiene laboratory on the second floor conducts a continuous investigation of working conditions, solvents, acids, dusts, air-borne contaminants, humidity, noise, lighting, and conditions involved in welding and other processes.

The lab is under the direction of John J. Ferry, an industrial hygienist of 20 years' experience. He worked in industrial hygiene research for the Metropolitan Life Insurance Co. and the U. S. Army, where he was with the Surgeon General's office before joining Schenectady GE in 1950.



EMALFON[®]

—SINGER'S Patented* INSULATED GLOVE

A new kind of glove—so different it's patented—ideal on hot jobs that do not exceed 700 degrees. Made with three thicknesses of material: Outer layer of terry cloth, treated to make it flame-resistant; inner layer of all-wool for added insulation; third layer (next to skin) of soft, fleeced cotton. This combination gives flexibility and long wear.

In many cases it has replaced asbestos gloves at a big saving. Fine for extra warm welding jobs.

If not available from your safety equipment dealer, write us for information and prices.

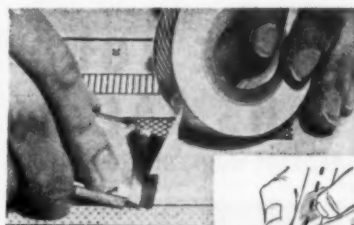
NEW CATALOG—just off the press!

*Patent No. 2,650,365

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"Work Gloves That Sing"



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Zip professional charts!

You can be a professional "draftsman" in minutes (so can anyone in your office.)

Everything you need to make an accurate, professionally drawn graph is pre-printed on self-sticking acetate tape! Lines, dotted lines, bars, people, coins, autos, — everything! Merely plot your dots—roll on whatever you want. Presto! A professional graph, without professional help, time or costs.

Write today for all the details on this revolutionary graph-making method! Chart-Pak materials also available for organization and flow charts, and office layout.



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Rush that Chart-Pak information to:

Name _____
Company _____
Address _____
City _____ State _____

NO DANGER



HEAD CAN'T FLY OFF!

The head and handle are forged in one piece... no welds or joints. Eliminates danger to fellow workmen and saves all expense and delay of loose or splintered handles. Grip is genuine leather proven most comfortable and durable.

Estwing

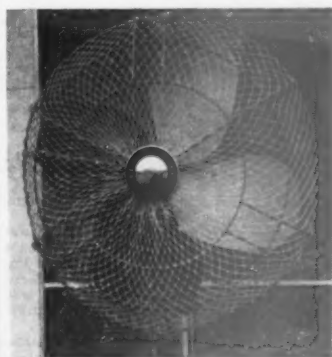
UNBREAKABLE TOOLS

Write for information
ESTWING MFG. CO.
DEPT. P
ROCKFORD, ILL.



MAKE YOUR FANS SAFER!

PROTECT WORKERS FROM INJURY



This fan guard prevents hand, arm and head injuries. Made of a mesh fabric, it is washable, mildewproof and won't interfere with the normal flow of air and is non-static.

Cover protects back and sides of fan as well as the front.

Immediate delivery. Write to

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83-85 Howell Street Rochester 7, N. Y.

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Bone-Dry Shoe Mfg. Co.	123	Scott Aviation Corp.	53
Bradley Washfountain Co.	108	Scott Paper Co.	79
Breck, John H., Inc.	71	Sellstrom Mfg. Co.	109
Brossard, Lester, L., Co.	127	Singer Glove Mfg. Co.	139
Brunin & Co.	101	Speedi-Dri Corp.	56
Bullard, E. D., Co.	85	Standard Industrial Products Co.	67
C		Standard Safety Equipment Co.	73
Cambridge Rubber Co.	9	Stonehouse Signs, Inc.	41
Canfield Oil Co.	109	T	
Chart-Pak, Inc.	139	Tamms Industries, Inc.	126
Chicago Eye Shield Co.	I.B.C.	Taylor, Halsey W., Co.	115
Chicago Hardware Foundry Co.	122	Taylor, S. G., Chain Co.	95
Chicago Watchclock Co.	93	Tower, A. J., Co.	113
Columbus McKinnon Chain Corp.	90	Trumbull Mfg. Co.	96
Continental Can Co.	12	U	
Coppus Engineering Co.	5	Union Wire Rope Corp.	10
Cornelius Co.	123	U. S. Safety Service Co.	45
Cotterman, I. D.	124	U. S. Treasury	66
C-O-Two Fire Equipment Co.	8	V	
Cover, H. S.	121	Vonnegut Hardware Co.	111
D		W	
Davenport, A. C., & Son, Inc.	99	Waco Mfg. Co.	127
Dayton Safety Ladder Co.	61	Watchmoke Optical Co.	6
Dickson Corp.	124-125	Weisman Mfg. Co.	112
Dolge, C. B., Co.	139	West Disinfecting Co.	83
Dow-Corning Corp.	57	Wilkins Co., Inc.	75
DuPont, E. I., de Nemours & Co.	99	Willson Products, Inc.	1
E		Wyandotte Chemicals Corp.	94
Ellwood Safety Appliance Co.	114		
Employers Mutuals of Wausau	77		
Estwing Mfg. Co.	140		
F			
Federal Sign and Signal Corp.	114		
Finnell Systems, Inc.	130		
Frost Paint & Oil Corp.	129		
Fyr-Fyter Co.	88		
G			
General Radio Co.	43		
General Scientific Equipment Co.	111		
Gro-Cord Rubber Co.	103		
H			
Haws Drinking Faucet Co.	121		
Hillyard Chemical Co.	46		
Hood Rubber Co.	67		
Hy-Test Div., International Shoe Co.	16		
I			
I. D. U. Products Co.	120		
Industrial Gloves Co.	120		
Industrial Products Co.	119		
Iron Age Div., H. Childs & Co.	63		
J			
Junkin Safety Appliance Co., Inc.	128		
K			
Keystone View Co.	119		
Kidde, Walter, & Co., Inc.	49		
Kimberly-Clark Corp.	11		
Kinnear Mfg. Co.	86		
L			
Legge, Walter G., Inc.	87		
Lehigh Safety Shoe Co.	3		
Lightfoot Schultz Co.	117		
Littell, F. J., Machine Co.	118		
M			
McAn, Thom, Safety Shoes	7		
McDonald, B. F., Co.	98		
Merrill Brothers	122		
Mine Safety Appliance Co.	I.F.C.		
Modern Machine Tool Co.	116		
N			
National Safety Congress & Exposition	47		
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New York Belting & Packing Co.	14		
O			
Onox, Inc.	84		
Osborn Mfg. Co.	125		
P			
Patent Scaffolding Co., Inc.	93		
Pennsylvania Optical Co.	13		
Permax Corp.	117		

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927 BUTLER ST., TOLEDO 5, OHIO

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... the Reader Service postcard will get it for you **FAST!**

Here's how it works—

Printed below are two identical Reader Service postcards—the bottom one for your use; the top one for later readers of this issue. The numbers listed on each card are keyed to products advertised and the new safety equipment and trade publications described on

pages 131 through 138. Just circle the items you want to know more about, and we will ask the manufacturer to send you full information without obligation. Both cards are perforated for easy removal, and no postage is required.

New Safety Equipment

Products featured in this section have been carefully reviewed by Council engineers so as to bring you only what's new and reliable in the safety field. Only new safety and health products, or newsworthy improvements in existing equipment are eligible for listing.

Trade Publications

Here's a wealth of helpful trade literature—catalogs, spec sheets, booklets, brochures—that will help you compare before you buy. Whether you are in the market now, or think you may be at a later date, you'll want these valuable references in your safety equipment data file.

Products Advertised

As you read through this issue of the NEWS, you will find advertisements describing equipment that may help you solve some of your accident problem. Instead of making a "mental note," make sure you get full information by circling the corresponding page number on the Reader Service postcard. The letters L, R, T and B locate the ads on the page—left, right, top and bottom. IFC—inside front cover; IBC—inside back cover; BC—back cover.

IMPORTANT—Be sure to fill in your name, organization and address in the space provided on the reverse side of the postcard.

National Safety News, September, 1954

NATIONAL SAFETY NEWS:

SEPT. 1954

(Good until Nov. 30)

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1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31
2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32

TRADE PUBLICATIONS SECTION:

1	5	9	13	17	21	25	29	33	37	41	45	49
2	6	10	14	18	22	26	30	34	38	42	46	50
3	7	11	15	19	23	27	31	35	39	43	47	51
4	8	12	16	20	24	28	32	36	40	44	48	

PRODUCTS ADVERTISED:

1	9	16	53	65	75	86	93T	97B	103	111BR	115T	118B	122L	125L	128R	139BR
3	10	41	55	67T	77	87	93B	98T	107	112L	115B	119T	122R	125R	129L	140TL
4	11	43	56	67B	79	88	94	98B	108	112R	116T	119B	123T	126L	129R	140BL
5	12	45	57	68	81	89	95	99T	109L	113BL	116B	120T	123BL	126R	130	140BR
6	13	46	59	69	83	90	96T	99B	109R	113BR	117T	120B	123BR	127L	134TL	IFC
7	14	49	61	71	84	91	96B	100	110	114T	117B	121T	124L	127R	139TR	IBC
8	15	51	63	73	85	92	97T	101	111BL	114B	118T	121B	124R	128L	139BL	BC

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8	15	51	63	73	85	92	97T	101	111BL	114B	118T	121B	124R	128L	139BL	BC

The advertising pages of the News

. . . your guide to reliable suppliers of worthwhile safety equipment

The advertising policy of the NEWS requires that all equipment and products meet established codes and standards, have the approval of recognized testing agencies, or have proven their value through actual use in industry. Council engineers and technicians screen every

advertisement to make sure that product description is accurate, and performance claims verified by reliable sources. It should not be construed, however, that products advertised are approved or endorsed by the National Safety Council.

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Before you mail your
Reader Service
postcard . . .

TAKE ANOTHER LOOK AT

- the ADVERTISING pages
- the NEW SAFETY EQUIPMENT section
- the TRADE PUBLICATION section

Make sure all the items you want to know more about are circled . . . check to make sure your name, organization, and address are printed on this side of the postcard . . . THEN mail it today.

National Safety News, September, 1954

CESCO

NEW Temples



No. 374
Comfort-Bridge
Goggle

No. 380
Sideshield
Comfort-Bridge Goggle

Now, **CESCO Comfort-Bridge Goggles** are furnished with new symmetrical tip temples which are interchangeable—right or left.

These new temples are better looking and designed with greater strength at the endpiece joint where breakage usually occurs. That's because the flat bar of the temple is at a right angle to the tip.

Insulators, made of attractive flesh-colored extruded plastic, are easy to replace. They slide freely over the flexible shaft ends and are automatically held in place. Closed end of the plastic insulator keeps shaft from poking through.

Added to the many other features of CESCO Comfort-Bridge Goggles, these new temples make the **No. 374** and **No. 380** CESCO Goggles the most acceptable of any safety glasses. Workers like to wear them. Service costs are lower because repairs are easier, and less frequent. And . . . they're "**RIGHT . . . before your Eyes.**"



CESCO FOR SAFETY



Facial Protection

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Latest Developments?
Better Protection?

LOOK FOR

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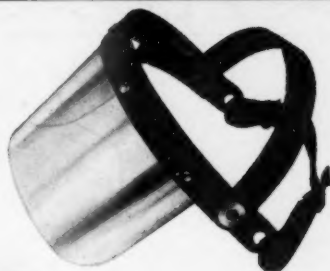
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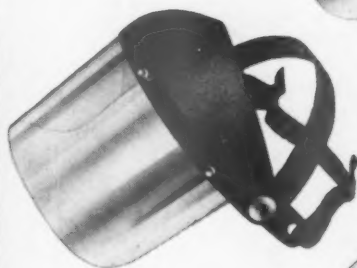
NEW

AO "H" SERIES
FACE SHIELDS

H1W



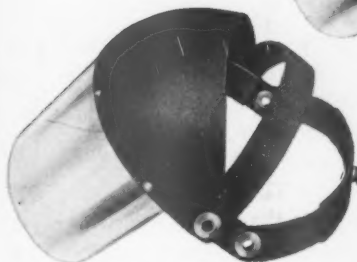
H2W



H3W



H4W



QUICK FACTS

Specially treated (anti-perspiration) soft, genuine leather sweatbands.

Windows easily interchangeable (simplifies handling, stocking, assembling).

Windows available in clear or green acetate, 24 mesh screen, and fibre.

For complete details on all 4 "H" Series Face Shields (H1, H2, H3, H4) write for new brochure S-2141 . . . do it to-day.

RECOMMENDED USES: For metal sawing, chemical operations, buffing, sanding, light grinding, light bulb and glass bottle manufacturing, radio and television tube exposures, bottling operations and similar eye and facial hazards encountered in industry.

American Optical



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